



P4500

User Manual

Version 1.0



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SAFETY INSTRUCTIONS

1. Read these instructions carefully. Keep these instructions for future reference.
2. Please disconnect the equipment from AC outlet before cleaning.
Don't use liquid or spray detergents for cleaning. Use a moist sheet or cloth for cleaning.
3. Please keep the equipment in a room with low humidity.
4. Lay the equipment on a reliable surface when installing. A drop or fall could cause injury.
5. Make sure power cord lies in such a way that people cannot step on it.
Do not place anything over the power cord.
6. All cautions and warnings on the equipment should be noted and adhered to.
7. If the equipment is not used for long time, disconnect it from the mains to avoid being damaged by transient over voltage.
8. Never pour any liquid into the opening; this could cause a fire or electrical shock.
9. If one of the following situations arises, get the equipment checked by service personnel:
 - a. The power cord or plug is damaged.
 - b. Liquid has penetrated into the equipment.
 - c. The equipment has been exposed to moisture.
 - d. The equipment does not work well or you cannot get it work according to the user manual.
 - e. The equipment has been dropped and is damaged.
10. Do not leave the equipment in an unconditional environment, at a storage temperature below -20°C or above 60°C, as it may damage the equipment.
11. Unplug the power cord when doing any service or adding optional kits.

Lithium Battery Caution:

Danger of explosion arises if the battery is incorrectly replaced. Replace only the original or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

CE Notice

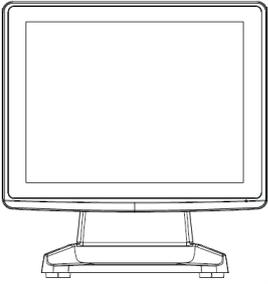
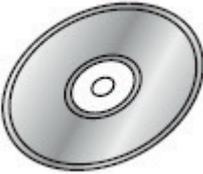
This device complies with the requirements of the CE directive.

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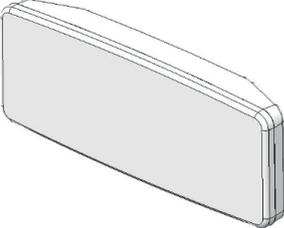
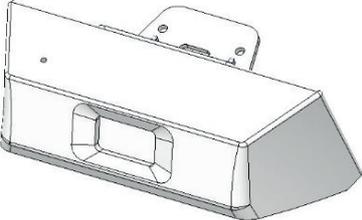
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PACKING LIST

1-1 Standard Accessories

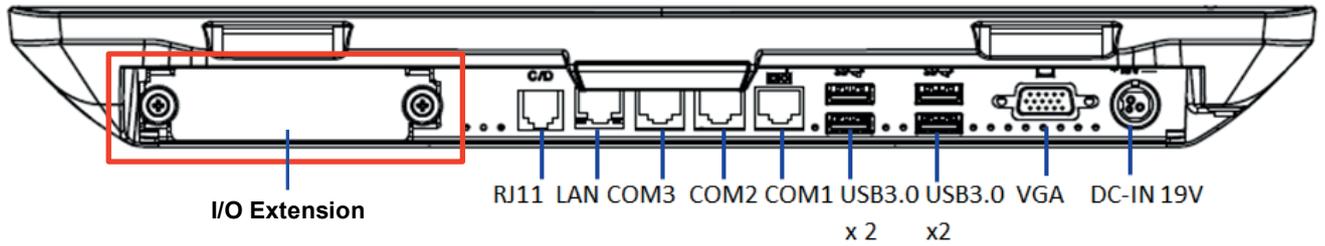
<p>a.</p> 	<p>b.</p> 	<p>a. System (with stand)</p> <p>b. Power Adapter</p>
<p>c.</p> 	<p>d.</p> 	<p>c. Power Cord</p> <p>d. Driver Bank</p> <p>e.</p> 

1-2 Optional Accessories

<p>a.</p> 	<p>b.</p> 	<p>a. Single MSR</p> <p>b. VFD</p>
<p>c.</p> 	<p>d.</p> 	<p>c. 8"/10.4"/15" 2nd Display</p> <p>d. 1D or 2D Barcode</p> <p>e. MSR + iButton</p> <p>f. MSR+RFID</p> <p>g. UPS Battery</p>

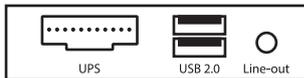
SYSTEM VIEW

2-1. Rear View

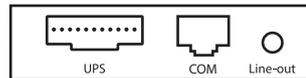


I/O Extension

Type A I/O Card



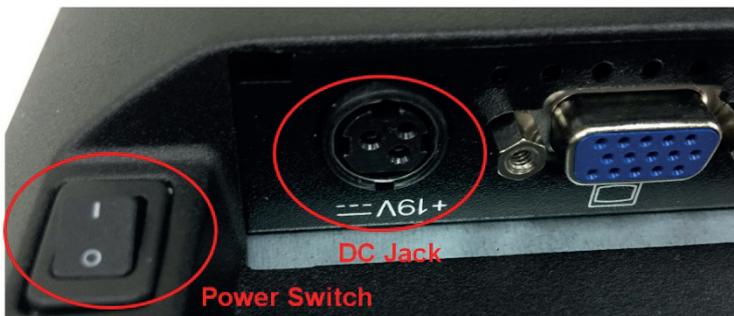
Type B I/O Card



Type C I/O Card

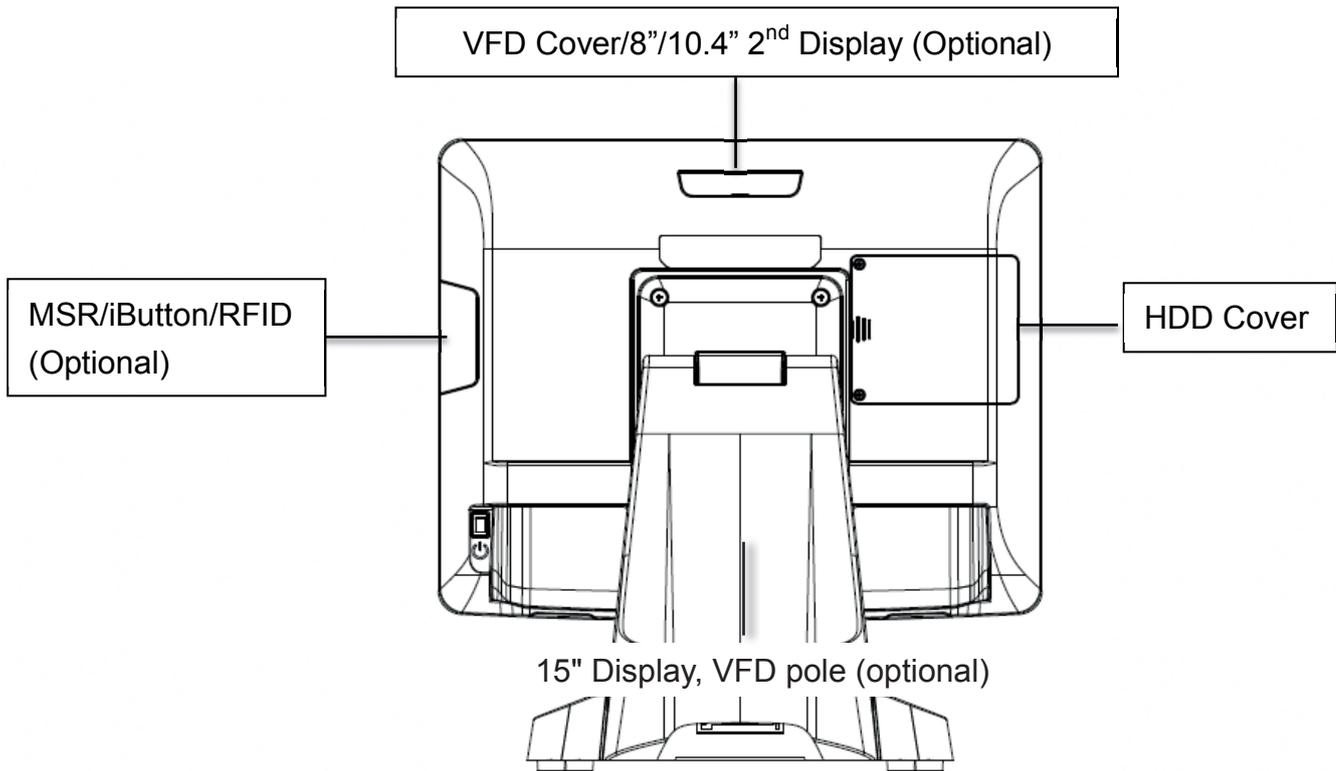


Type E I/O Card



! Please make sure the 19V DC is plugged in the right direction before plugging in DC jack.

2-2. Back View



2-3. Specification

Model		Colormetrics P4500	
Display	Display Size		15" TFT LCD
	Resolution		1024 X 768
	Brightness /Color		350 cd/m ² , 16.7M colors
	Backlight		LED
Touch Panel	Type		5 wire resistive or projected capacitive touch
Processor	CPU/ Chipset		Intel® Celeron 3965U (Dual Core 2MB Cache, up to 2.20GHz)
Memory		X 1 (DDR4-2133MHz SO-DIMM, up to 16GB)	
Storage		X 1 (2.5" SATAIII HDD or SSD) / X 1 M.2 (Support 2242 & 2280) (SSD)	
I/O Connectors	USB 3.0		X 4
	Powered COM		X 3 (RJ45 x 1 with DC 5V/12V selectable)
	Cash Drawer Port		X 1 (12V/24V RJ11 cash drawer port)
	VGA		X 1
	LAN		X 1 (RJ45, 10/100/1000 Base-T)
I/O Expansion	Type A		X 1 UPS, X 2 USB2.0, X 1 Line-out
	Type B		X 1 UPS, X 1 COM (RJ45 with DC 5V/12V selectable), X 1 Line-out
	Type C		X 1 24V Powered USB, X 2 USB 2.0, X 1 Mic-in, X 1 Line-out
	Type E		X 4 USB2.0, X 1 COM (RJ45 with DC 5V/12V selectable)
Optional Peripherals		VFD / 8"/10.4" 2 nd display / MSR / iButton / RFID / fingerprint reader / 1D/2D barcode scanner / WiFi	
Power Supply		90W or 150W 19V lockable 3-pin DC input power adapter	
OS Support		Linux / Win 10 IoT Enterprise	
Environment	Temperature	Operation	32° to 95° F (0° to 35° C)
		Storage	-4° to 140° F (-20° to 60° C)
	Relative Humidity		20% to 80% non-condensing
Dimension (W x H x D)		374 X 356 X 207 mm	

PIN DEFINITION

1. J1: eDP pin Definition

No.	Definition	No.	Definition
1	NC	16	GND
2	GND	17	DDI2_DP_HPD
3	DDI2_DP_TX1_DN	18	GND
4	DDI2_DP_TX1_DP	19	GND
5	GND	20	GND
6	DDI2_DP_TX0_DN	21	GND
7	DDI2_DP_TX0_DP	22	BL_Enable
8	GND	23	BL PWM DIM
9	SOC_EDP1_AUX_P	24	NC
10	SOC_EDP1_AUX_N	25	NC
11	U3Rxp1	26	+12V
12	+V3.3V	27	+12V
13	+V3.3V	28	+12V
14	NC	29	+12V
15	GND	30	NC

2. SATA1: 7+15 PIN SATA Pin Definition

No.	Definition	No.	Definition
1	GND	12	GND
2	SATA_TX0_P	13	GND
3	SATA_TX0_N	14	+V5
4	GND	15	+V5
5	SATA_RX0_N	16	+V5
6	SATA_RX0_P	17	GND
7	GND	18	GND
8	N/C	19	GND
9	N/C	20	N/C
10	N/C	21	N/C
11	GND	22	N/C

3. SPK1: Int. Speaker Pin Definition

No.	Definition
1	Left Out +
2	Left Out -
3	Right Out-
4	Right Out+

4. SW1: Power Button Pin Definition

No.	Definition
1	+5V standby
2	+5V
3	Power-ON#
4	GND

5. JBAT1: Power Button Pin Definition

No.	Definition
3	Clear CMOS#
5	GND

6. CN1: Touch panel Pin Definition

No.	Definition
1	+5V
2	USB D-
3	USB D+
4	GND

7. CN4: Sideway MSR connector Pin Definition

No.	Definition
1	+5V
2	+5V
3	GND
4	USB D-
5	USB D+
6	USB D-
7	USB D+
8	USB D-
9	USB D+
10	GND
11	+3.3V
12	+3.3V
13	N/C

8. CN2: VFD connector Pin Definition

No.	Definition
1	RTS#
2	DSR#
3	TxD
4	RxD
5	CTS#
6	DTR#
7	+5V
8	USB D-
9	USB D+
10	GND

1. JS1: DC Jack Pin Definition

No.	Definition
1	+19V
2	Ground
3	+19V

2. VGA1: VGA connector Pin Definition

No.	Definition
1	RED
2	GREEN
3	BLUE
4	N/C
5	GND
6	GND
7	GND
8	GND
9	N/C
10	GND
11	N/C
12	SPD
13	HSYNC
14	VSYNC
15	SPCLK

3. CN6, CN7: 2-Layer USB3.0 pin Definition

No.	Definition	No.	Definition
1	+5V	8	TX-
2	D-	9	TX+
3	D+	10	+5V
4	GND	11	D-
5	RX-	12	D+
6	RX+	13	GND
7	GND		

4. COM1, COM2, COM3: RJ45 Pin Definition

No.	Definition
1	5V/12V/Ring#
2	DSR#
3	GND
4	DTR#
5	RTS#
6	CTS#
7	TxD
8	RxD

5. LAN1: RJ45 Pin Definition

No.	Definition
1	MDI0A+
2	MDI0A-
3	MDI1A+
4	MDI1A-
7	MDI2A+
8	MDI2A-
9	MDI3A+
10	MDI3A-

6. CN8: RJ11 (Cash Drawer) connector Pin Definition

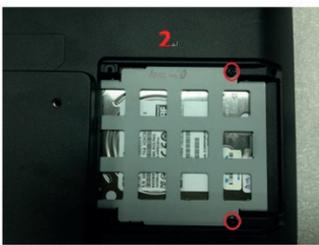
No.	Definition
1	GND
2	C/D_OPEN#
3	C/D Status
4	+12V/+24V
5	N/C
6	GND

5-1. HDD

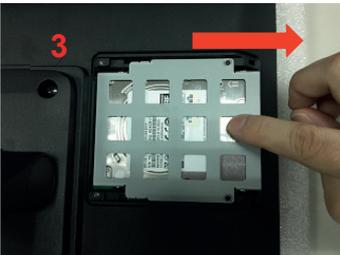
1. Remove the 2 hard drive cover screws then remove the hard drive cover.



2. Remove the 2 screws from the hard drive bracket



3. Slide the hard-drive bracket in an outward direction to remove it from the system



4. Remove the 4 hard drive bracket screws

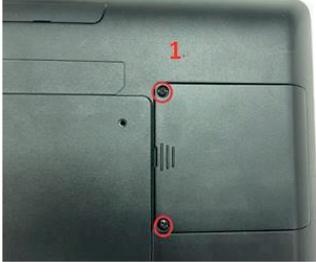


5. Remove the hard drive from the hard drive bracket

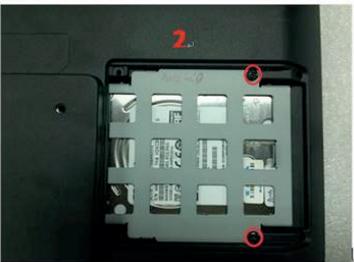


5-2. Memory

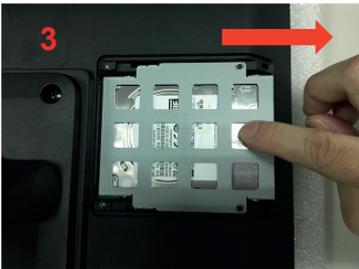
1. Remove the 2 hard drive cover screws then remove the hard drive cover



2. Remove the 2 hard drive bracket screws then remove the hard drive bracket



3. Slide the hard-drive bracket in an outward direction to remove it from the system



4. Remove the 2 I/O board screws



5. Remove the 1 VFD screw



6. Remove the screw inside the barcode area.



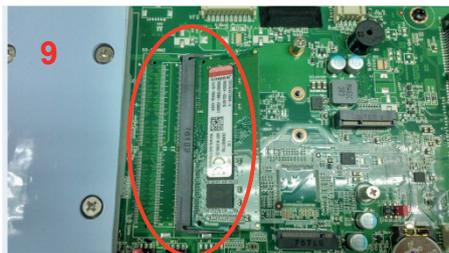
7. Remove the 2 VGA screws



8. Remove the back cover



9. Install memory into the socket



10. Push down on memory



5-3. M.2 SSD

1. Remove the screw and standoff from location of M.2 2280



2. Install the standoff to the location of M.2 2242



3. Install the M.2 2242 SSD into the socket



4. Push down on memory then fasten the screw



5-4. MSR / iButton / RFID

1. Remove MSR cover



2. Fasten the MSR holder with 2 screws



3. Plug the MSR cable into the MSR connector



4. Reinstall the MSR cover with 2 screws



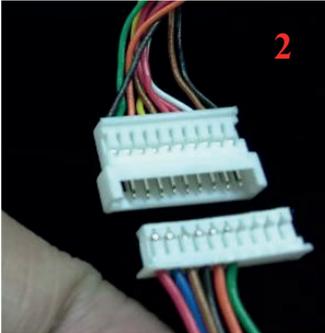
5-5. VFD / 8"/10.4"/15" 2nd Display

5-5-1. VFD/ 8"/10.4" 2nd Display

1. Remove top cover



2. Either plug the VFD cable into the VFD connector or plug the 8"/10.4" 2nd display cable into the 2nd display's connector (note: display connector can only be connected to one device at a time)



3. Install VFD with 2 screws / Install 8"/10.4" 2nd display with 2 screws



5-5-2. 15" 2nd Display

1. Remove back cover of the stand



2. Plug in DC 19V, VGA and the end of RJ45 of "RJ45 to D-SUB 9P" cables to the DC Jack, VGA and RJ45 ports on the system



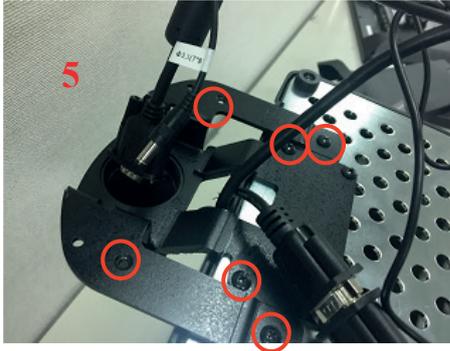
3. Arrange the cables, as shown in the figure



4. Connect the end of D-SUB 9P female of the "D-SUB 9P to DC Jack" cable to the other end of D-SUB 9P male cable



5. Fasten the 6 screws on the extended base to the frame base



6. Install the tube into the extended base and arrange the cables as shown in the figure then restore the back cover of the stand



7. Plug in the other end of VGA and DC Jack of the “D-SUB 9P to DC Jack” cables to the 15” 2nd display



8. Install complete



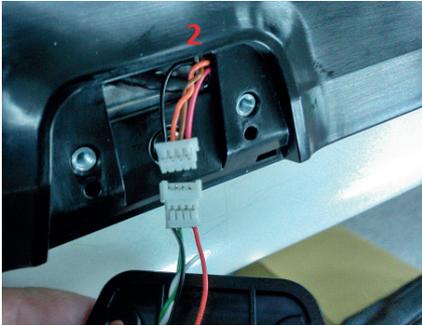
Refer to page 66 to use the power menu to enable the 12V power and connect it to the 2nd 15” display.

5-6. 1D/2D Barcode scanner

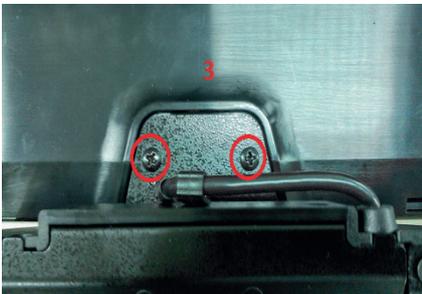
1. Remove barcode scanner cover



2. Plug the barcode scanner cable into the barcode connector

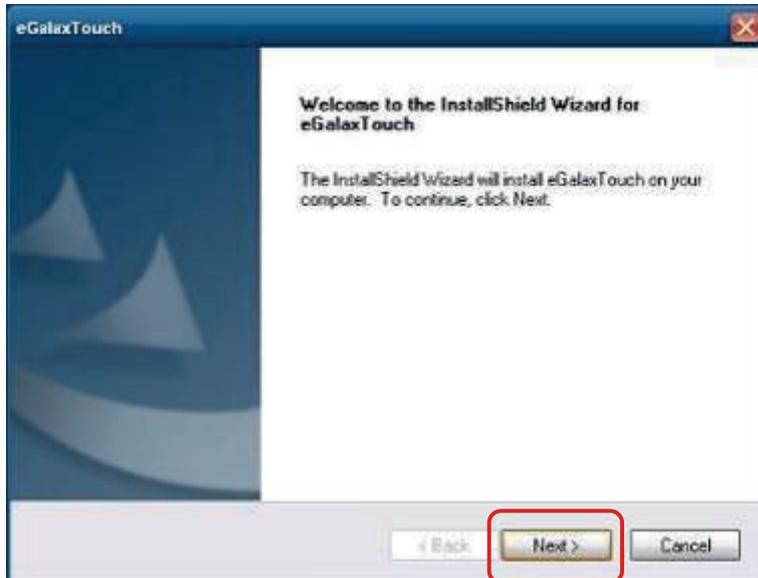


3. Install the barcode scanner with 2 screws

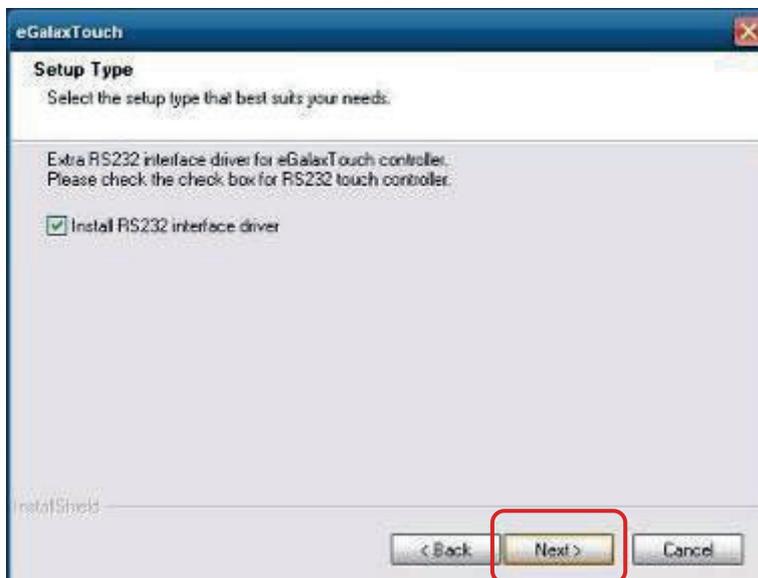


6-1. Resistive and P-CAP Type Touch Panel

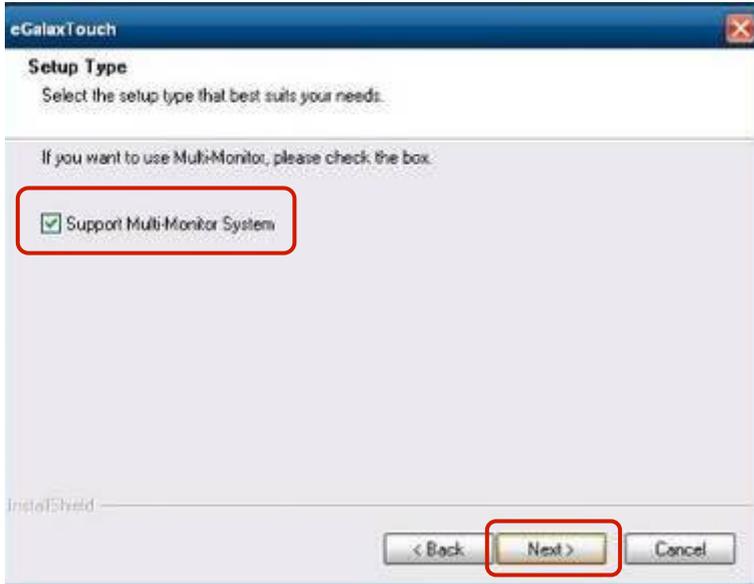
1. Click "**Next**".



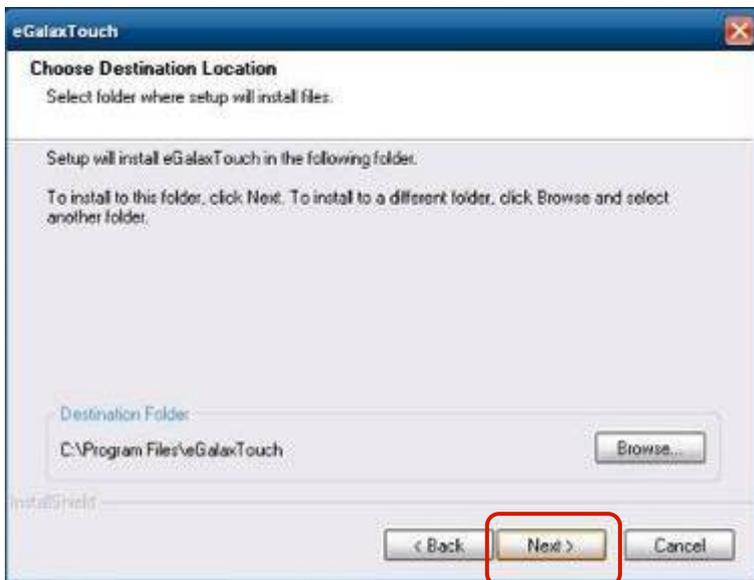
2. Click "**Next**".



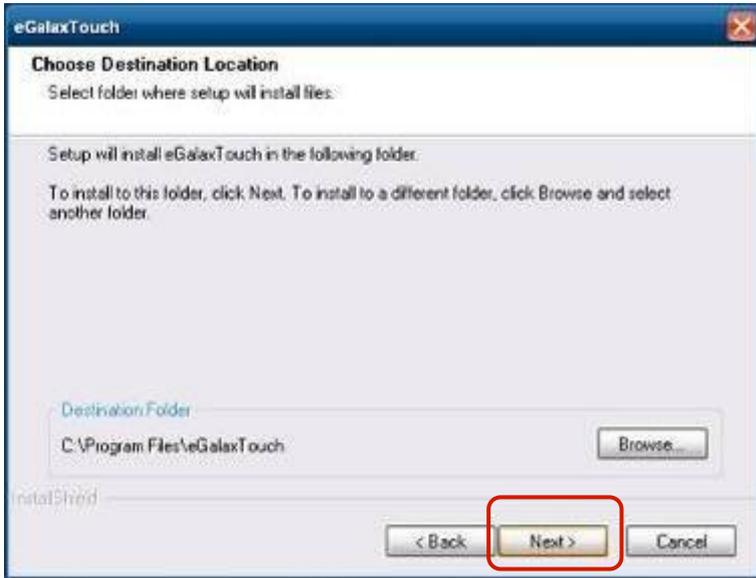
6. Select **“Support Multi-Monitor System”**, Click **“Next”**.



7. Click **“Next”**.



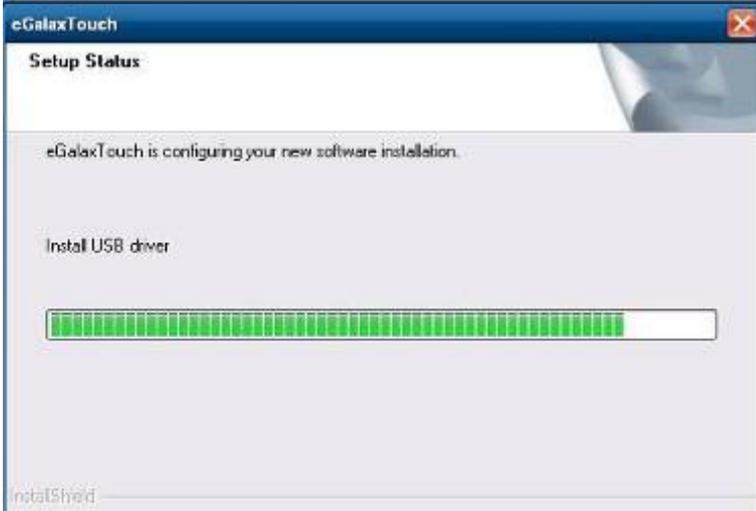
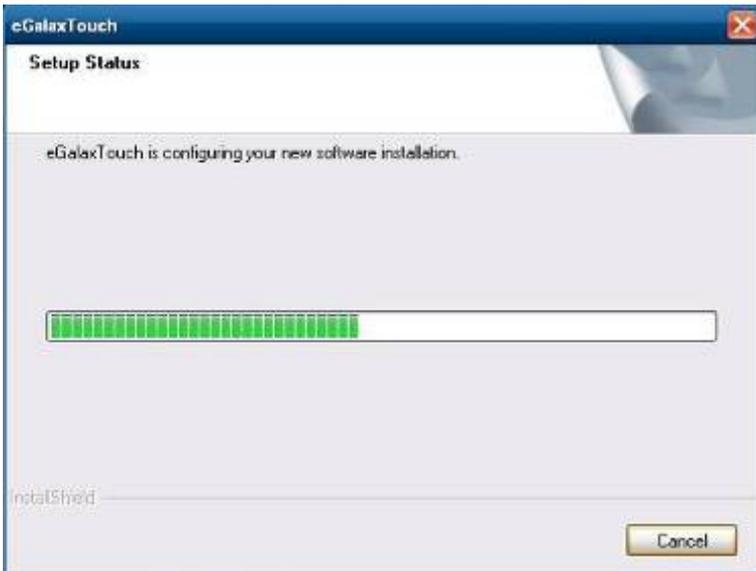
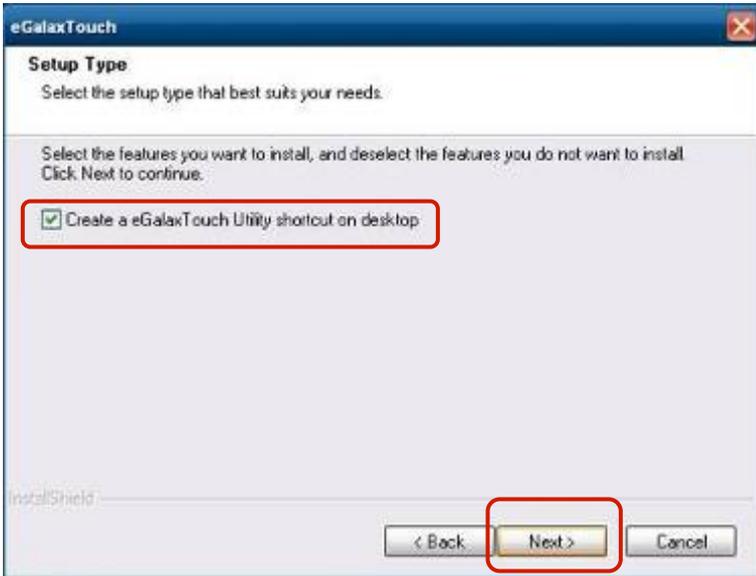
8. Click **Next**.



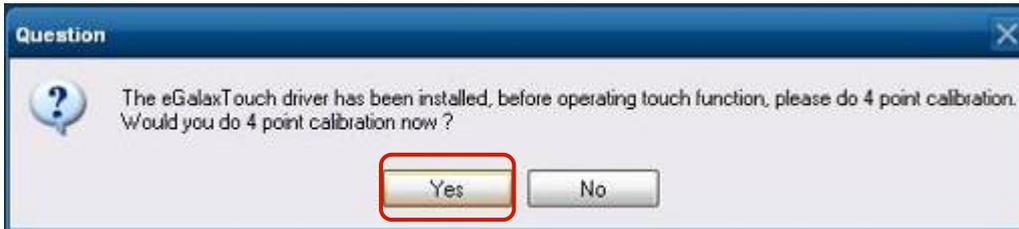
9. Click **Next**.



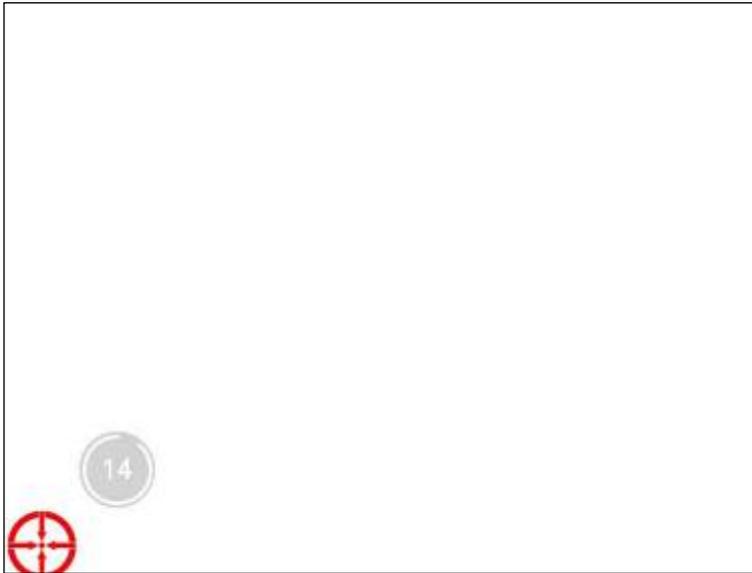
10. Select "**Create a eGalaxTouch Utility shortcut on desktop**", Click "**Next**".



11. Would you do 4 point calibration now? Click "Yes". (**Resistive Touch only**)



12. Do 4 points alignment to match display.



13. Calibration utility.



6-2. MagSwipe Card Reader Configuration Utility

The MagSwipe Configuration Utility is used to set up the output format of MagSwipe

Installation

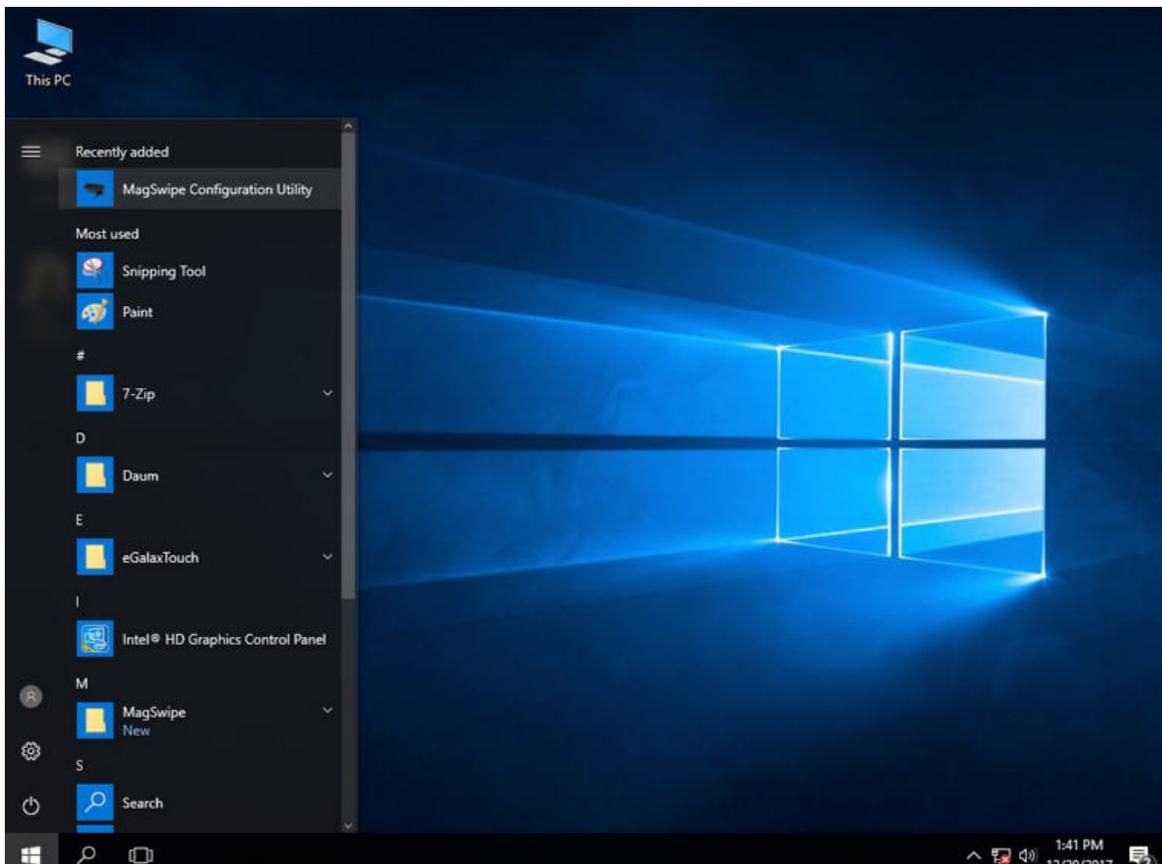
The steps below guide you how to install the Utility program

- Insert the setup CD
- Run the **80066804-006_MagSwipe_Configuration_Software_V2_1_A** setup file that is located in the Software folder of CD.
- Follow the wizard to complete the installation.

Launching Program

The steps below guide you how to load the **Utility** program.

- From **Start/Programs**, click **MagSwipe** folder
- Click **MagSwipe Configuration Utility** to launch the program.



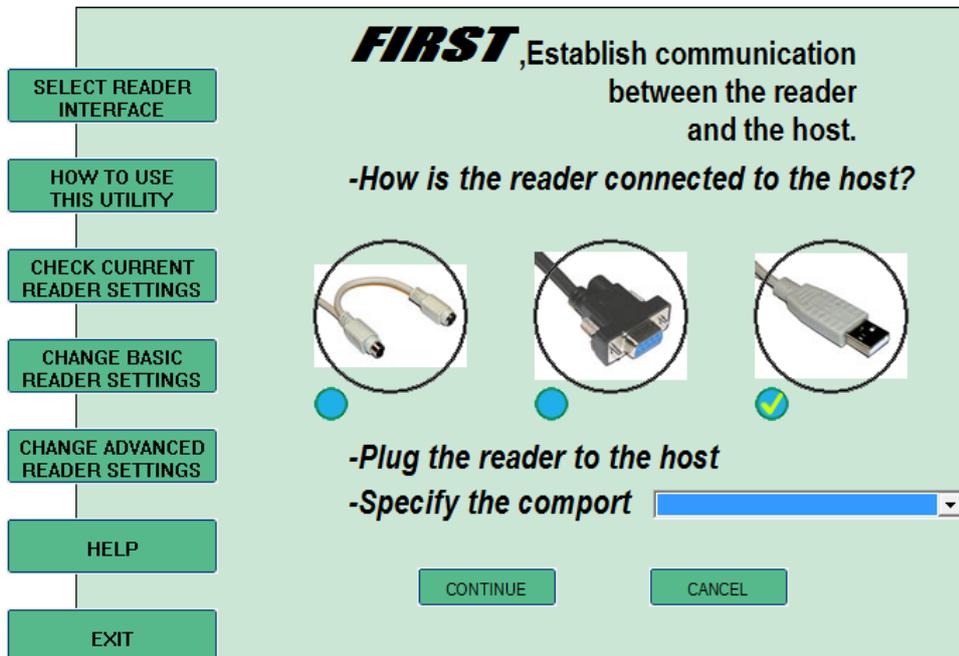
Configuration



Select Reader Interface

The reader to be configured should be connected. Select the corresponding connected reader interface and click the **Continue** button

IDTECH[®] MagSwipe Configuration Utility

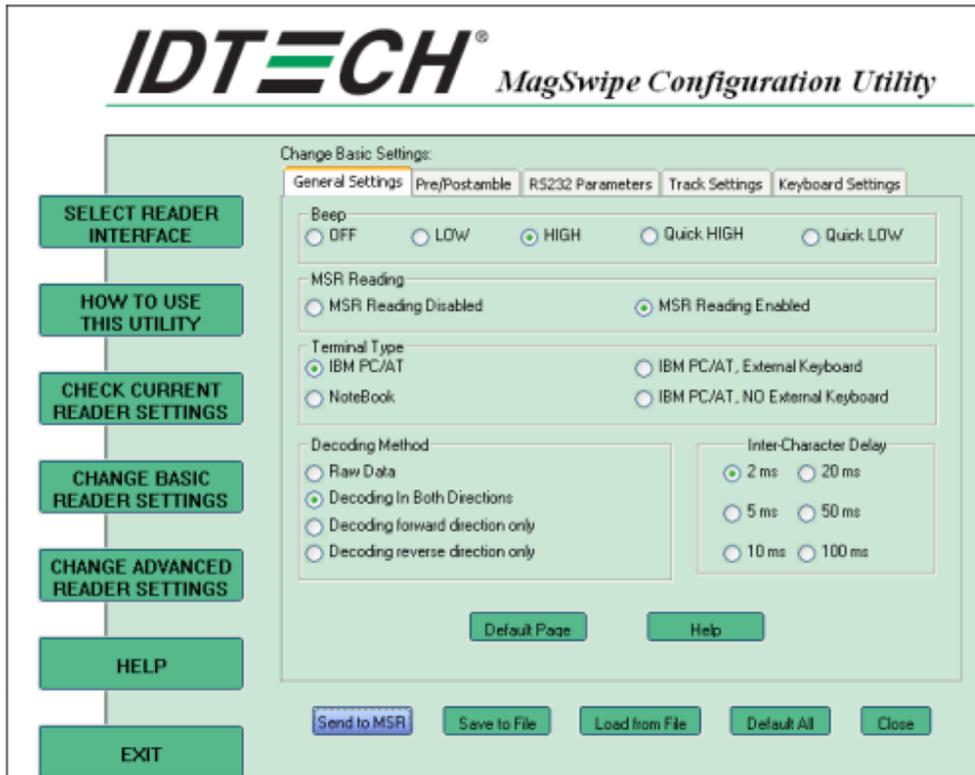


After the interface selection is made, click the **Continue** button. The utility attempts to communicate with the connected reader. If successful, the Home Menu Page is displayed. The Home Menu Page is shown below



Change Basic Reader Setting

After selecting the appropriate interface for the reader, select one of the Home Menu Page buttons to proceed with the Magnetic Stripe Reader (MSR) configuration process. The "Basic Reader Settings" group defines the basic operating parameters and data output format of the reader.



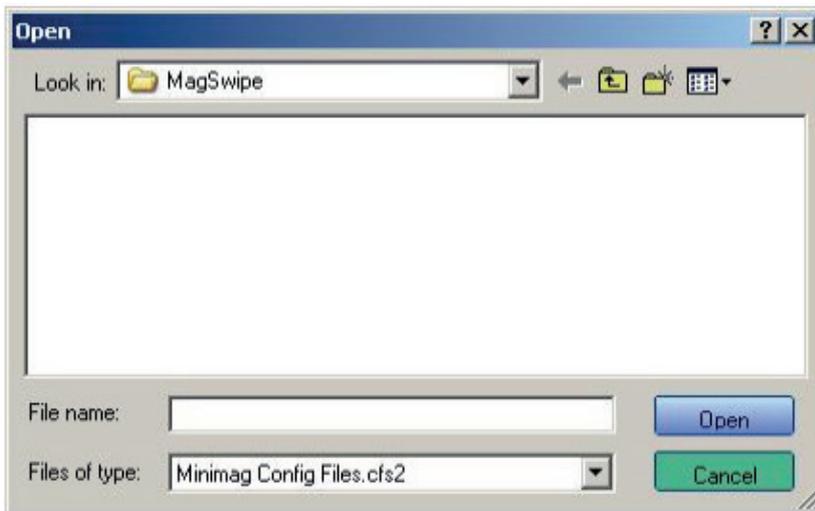
Button Definitions

Send To MSR

When all the setting parameters are selected, use the "Send To MSR..." button to send configuration data to the reader device. When the reader has received the data correctly, the settings take effect immediately.

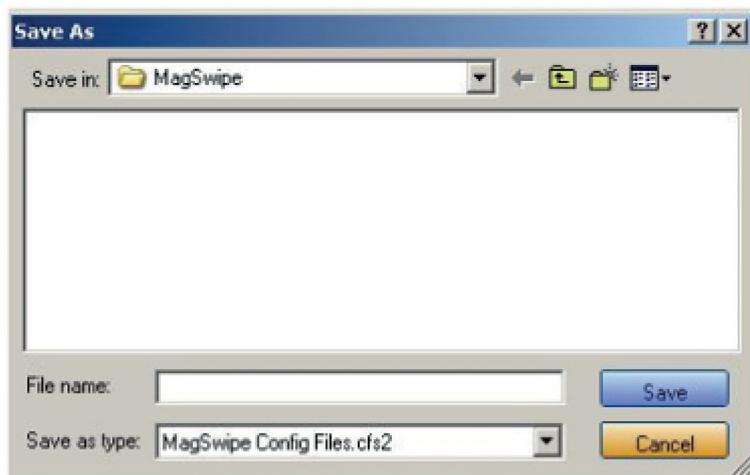
Load From File

The configuration data can be loaded into the configuration utility from a file that has been previously saved. Select this command, start a "File Open" dialog, which allows selection of the file.



Save To File

The configuration data can be saved as a file and being used later to configure other readers. When saving a configuration the "File Save" dialog is opened as shown below. Input a filename and file location.



Default All

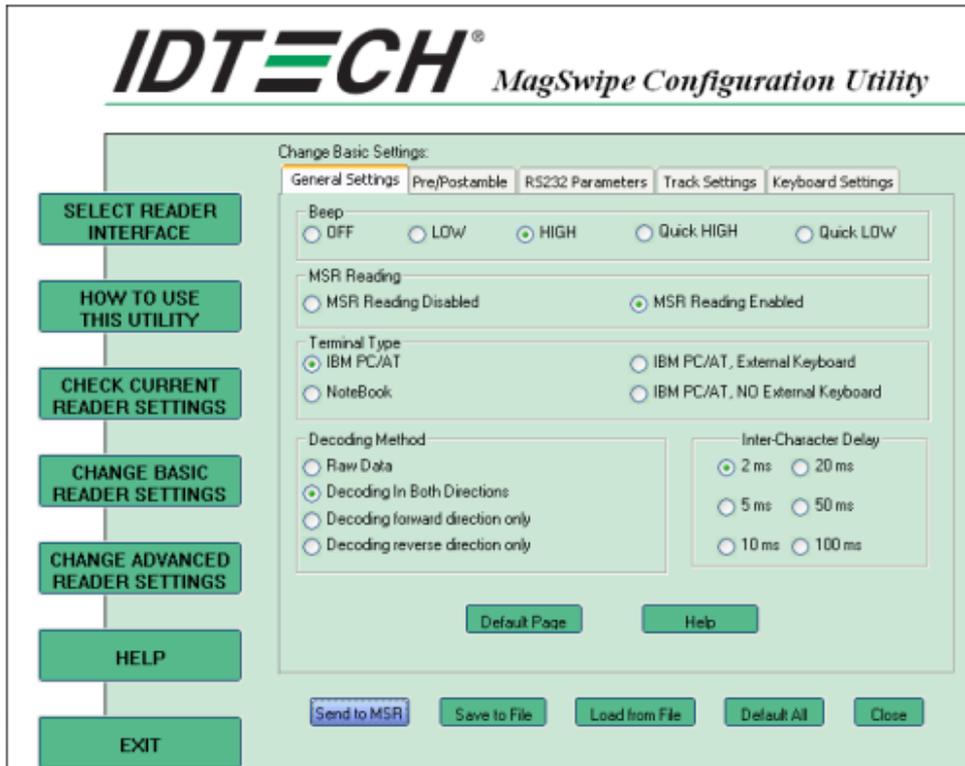
This button sets the reader with the default configuration parameters (the default factory settings). The settings take effect immediately. The default parameters affect all reader configurations settings.

Close

Close this dialog and return to the Home Menu Page.

General Settings

This group of configuration settings defines the basic operating parameters of the reader.



MSR Reading

This option will turn on or off the MSR. If MSR is disabled no data is sent out to host in any case.

The default is MSR Reading Enabled.

Decoding Method Settings

This option gives four kinds of decoding methods.

Raw Data (output in both forward and reverse directions)

Decoding in Both Directions (forward and reverse reading)

Decoding in Forward Direction only (card entering slot from LED end)

Decoding in Reverse Direction only (card entering slot from end opposite LED)

With the bi-directional operation, the user can swipe the card in both swipe directions and the data encoded on the magnetic stripe will be output. In the single swipe direction selections, the card can only be swiped in one specified direction to read the card. The default setting will decoding card data with the card swiped in either the forward or the reverse direction.

"Raw Data" is an output of the decoded magnetic stripe data in hexadecimal format (no ASCII character conversion is performed). In the Raw Data setting, the reader outputs all track-decoded data. The MSR will represent the raw data with two ASCII characters: the first ASCII character is for high bits of the raw data byte and the second is for the low bits. For example, the two ASCII characters "4" and "1" represent raw data byte 41h(01000001).

Beep Volume

The Beep volume can be adjusted to four loudness levels or off. Four loudness levels are:

Quick High

Quick Low

High

Low

The default is High beep.

Terminal Type

NoteBook

IBM-PC/AT

IBM-PC/AT, External keyboard

IBM-PC/AT, No External keyboard

The firmware can be programmed to interface as a keyboard wedge to 4 different types of terminals. The default is IBM-PC/AT.

Inter-Character Delay :

2ms, 5ms, 10ms, 20ms, 50ms, 100ms;

This is the time period the reader will delay between sending successive characters. Some terminals or computers (host) require an inter-character delay to simulate the effects of keystroke delays. Choosing a longer inter-character delay causes the characters to be sent at a slower rate. If the host system is not capable of receiving characters as fast as the reader can transmit, setting

an appropriate inter-character delay will keep the reader from overrunning the host input buffer.

The default is 2ms.

Default Page Button

After you click the Default Button, the general settings page will change back to the default value.

Settings are not sent to MSR until the "Send to MSR" button is clicked.

Help Button

Click the help button to open the help index for this section.

Pre/Postamble

Preamble

Characters can be added to the beginning of the reader's output string of data. These can be special characters for identifying a specific reading station, to format a message header expected by the receiving host, or any other character string. Up to nine ASCII characters can be defined for the Preamble.

Postamble

The Postamble serves the same purpose as the Preamble, except the extra characters are added to the end of a data string. The Postamble can be added only after a terminator character, if specified.

Track Prefix and Suffix

For some Host applications, it may be convenient to start or end a string of reader data with a Sentinel or terminator character. The maximum Prefix/Suffix string is six characters and its default is NULL (no prefix or suffix).

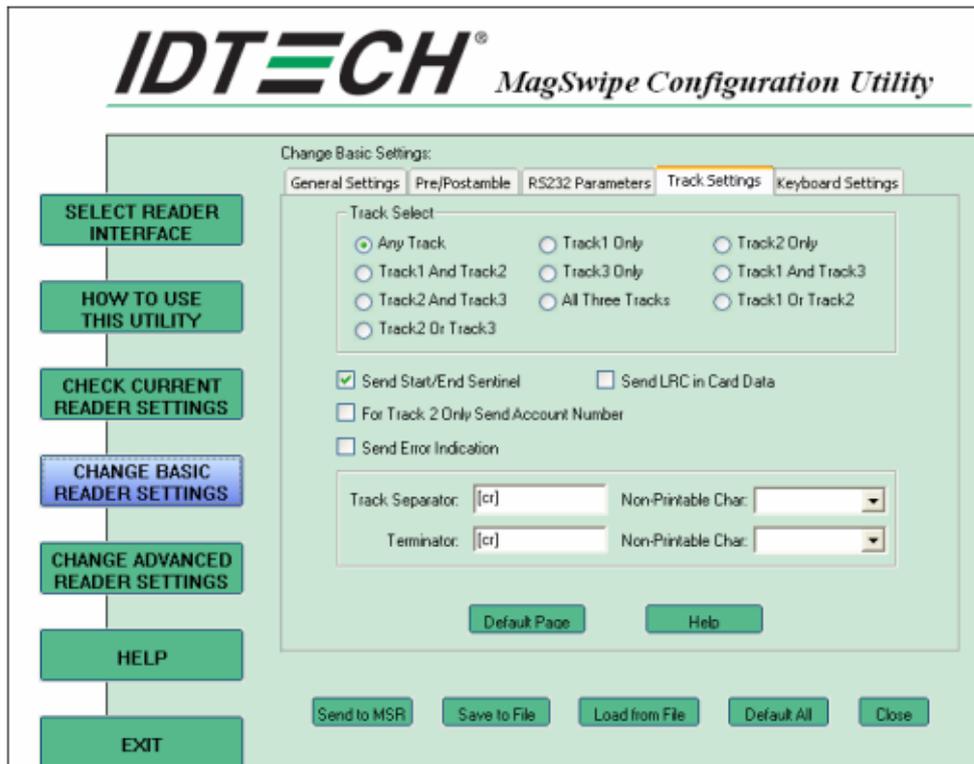
Track Start Sentinels

Characters can be added to the beginning of each track data string to simulate the start of the track data. These can be special characters for identifying a specific track.

End Sentinel

The magnetic stripe End Sentinel character can be added to the end of a magnetic stripe data string. This character simulates the end of character for track1, track2 or track3. This default is '?'

Track Settings



Track Selection

There are three tracks of information possible on a magnetic stripe. This option selects the tracks that will be decoded (read). Note that the magnetic stripe reader must have the hardware configuration (read head and circuits) for reading the specified tracks. If a single or dual track reader is used, the heads must be positioned to read the tracks selected by this option. The default is Any Track.(All tracks written on the card will be read).

Track Separator Selection

This option allows the user to select the character to be used to separate data decoded by a multiple-track reader. The default value is CR

Send Start/End Sentinel

The reader can send the Start/End sentinel for a track, decoded without error.

Send LRC in Card Data

The reader can send the track LRC for a properly decoded track.

For Track 2 only Send Account Number

The reader can only send account Number if it is true. And if it is false, the reader sends all Track 2 data.

Send Error Indication

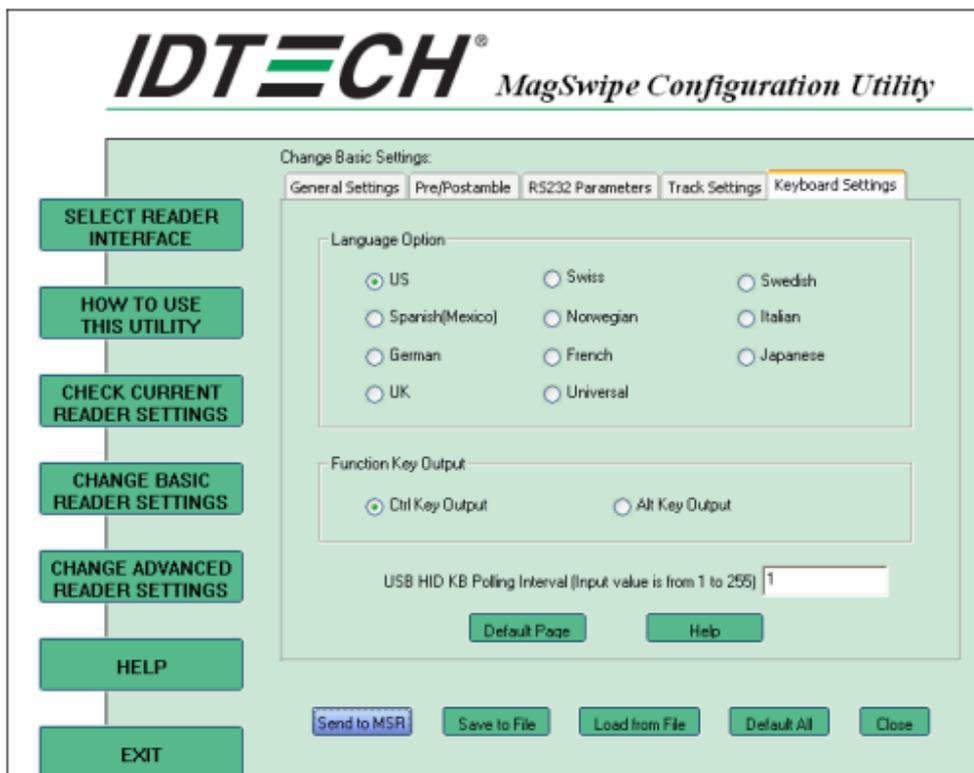
This option let reader to send out [SS]E[ES] if failed to read or missing data on a selected track. The default is off.

The error output for track 1 is "%E?".

The error output for track 2 is ";E?".

The error output for track 3 is "+E?".

Keyboard Settings



Keyboard Settings

There are keyboard settings information on a magnetic stripe. MiniMag II will support following foreign language keyboard and function key output for PS/2 and USB HID Keyboard Interface.

Language Option

This option allows the user to select the keyboard language of US, Swiss, Swedish, Norwegian, Italian, Spanish (Mexico), German, French, Japanese, UK and Universal. Universal language sends out all the data as a series of ALT keypad sequence.

Function Key Output

The function key output be used to support the special key to delay card data output.

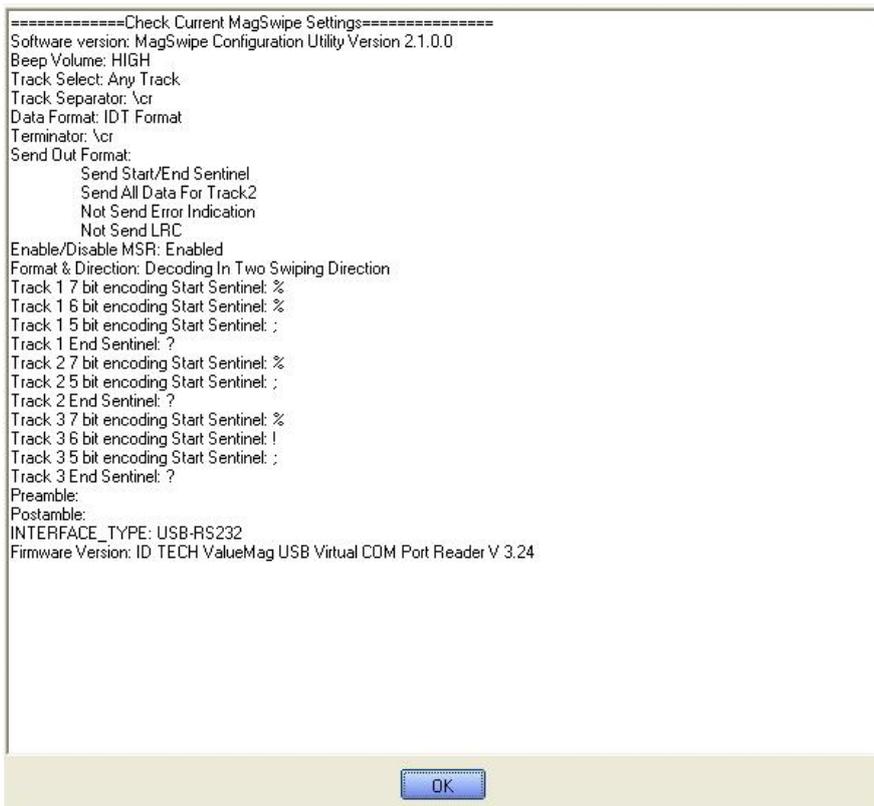
USB HID KB Polling Interval

The user can input the number between 1 to 255 for the delay of output.

Check Current Reader Setting

After you connect the device, the current reader configuration can be displayed by selecting this button. The configuration data of the connected reader will be displayed like in the example:

```
=====Check Current MagSwipe Settings=====
Software version: MagSwipe Configuration Utility Version 2.1.0.0
Beep Volume: HIGH
Track Select: Any Track
Track Separator: \cr
Data Format: IDT Format
Terminator: \cr
Send Out Format:
    Send Start/End Sentinel
    Send All Data For Track2
    Not Send Error Indication
    Not Send LRC
Enable/Disable MSR: Enabled
Format & Direction: Decoding In Two Swiping Direction
Track 1 7 bit encoding Start Sentinel: %
Track 1 6 bit encoding Start Sentinel: %
Track 1 5 bit encoding Start Sentinel: ;
Track 1 End Sentinel: ?
Track 2 7 bit encoding Start Sentinel: %
Track 2 5 bit encoding Start Sentinel: ;
Track 2 End Sentinel: ?
Track 3 7 bit encoding Start Sentinel: %
Track 3 6 bit encoding Start Sentinel: !
Track 3 5 bit encoding Start Sentinel: ;
Track 3 End Sentinel: ?
Preamble:
Postamble:
INTERFACE_TYPE: USB-RS232
Firmware Version: ID TECH ValueMag USB Virtual COM Port Reader V 3.24
```

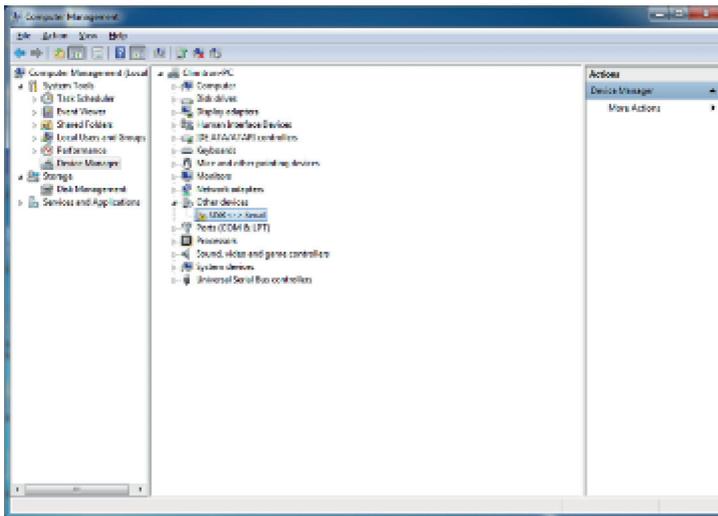


6-3. RFID

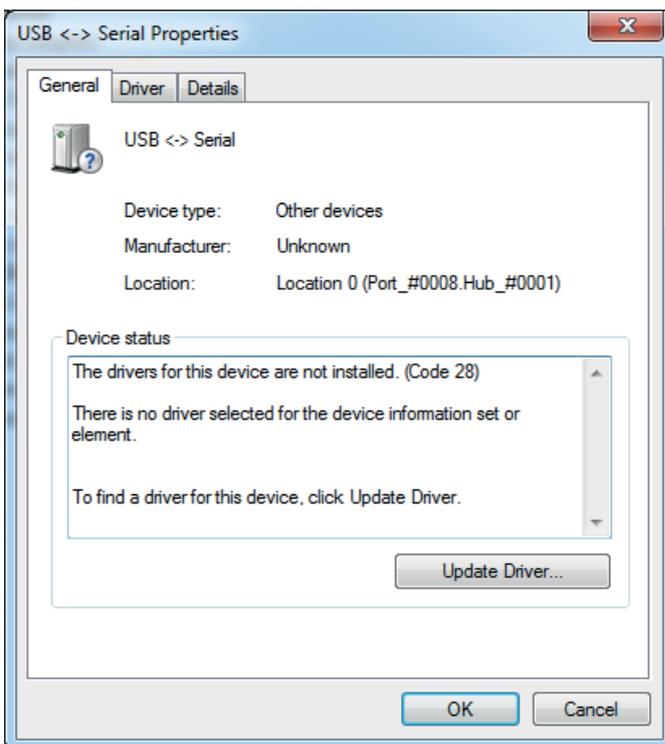
6-3-1. Install driver

1. Check the Device Manager to verify the status of RFID reader.

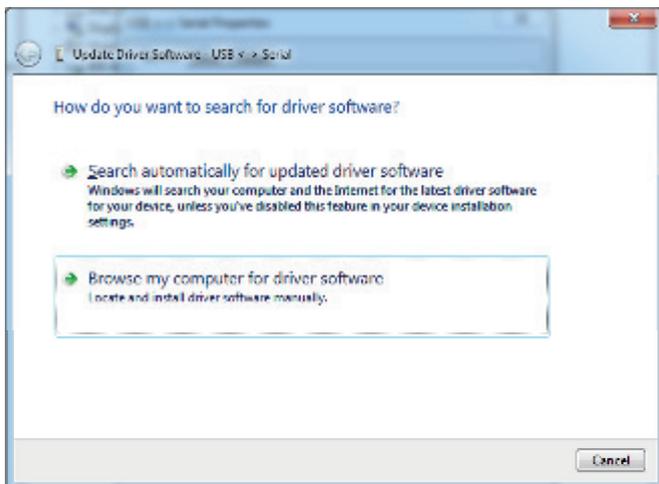
Computer Management -> Device Manager -> Other devices (The device will show a question mark if the installation is not done properly.)



2. Double-click to update driver.

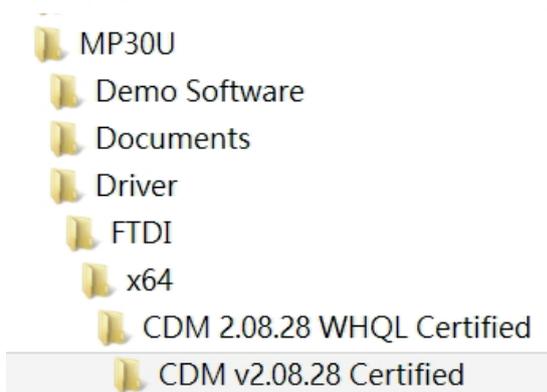


3. Select “Browse my computer for driver software.”

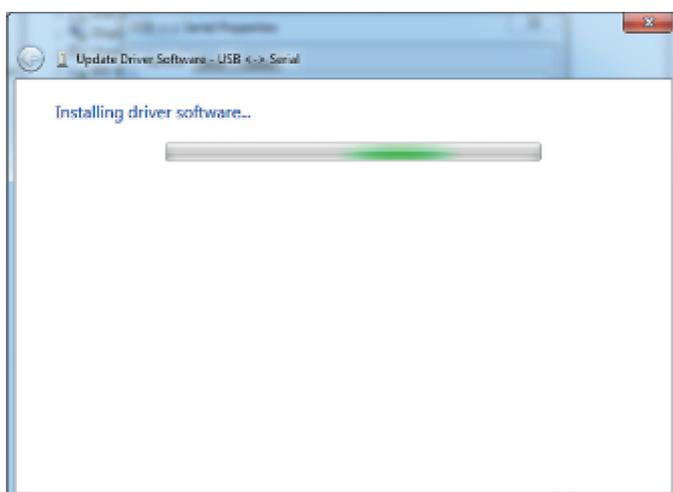


4. Click Browse to select file called MP30U \Driver\FTDI\x64

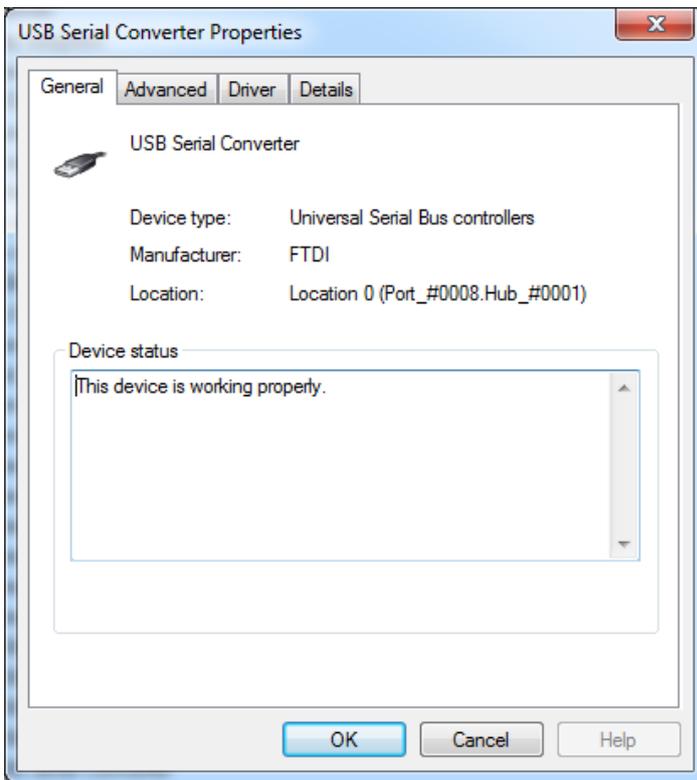
And click Next.



5. Install the driver



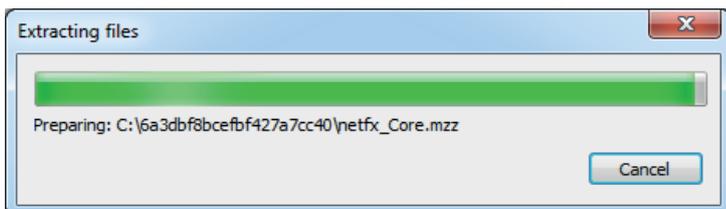
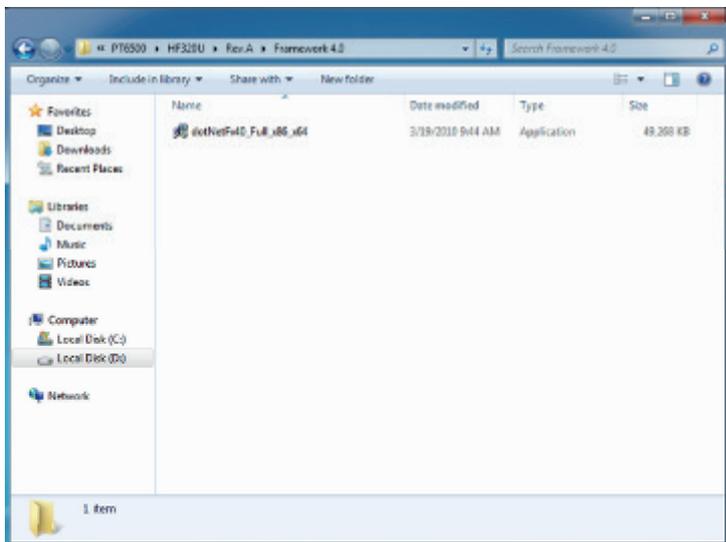
6. Install complete and then click “close”



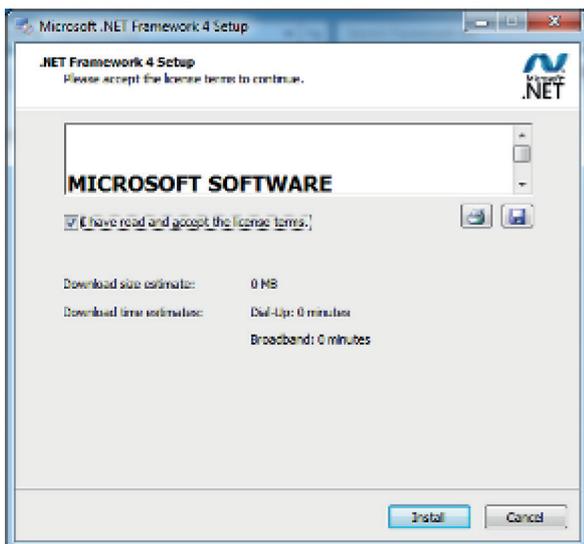
7. Restart the computer

6-3-2. Install framework 4.0

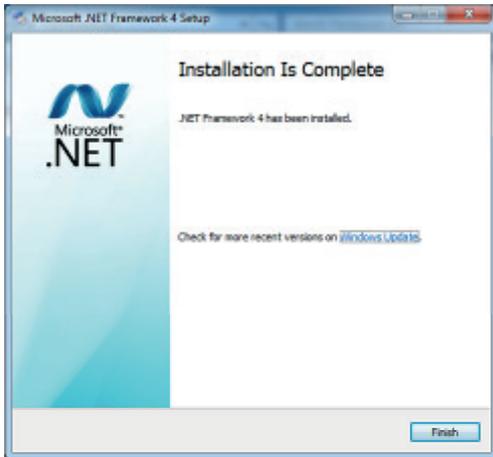
1. Double-click to install.



2. Select "I have read and accept the license terms." And click Install..

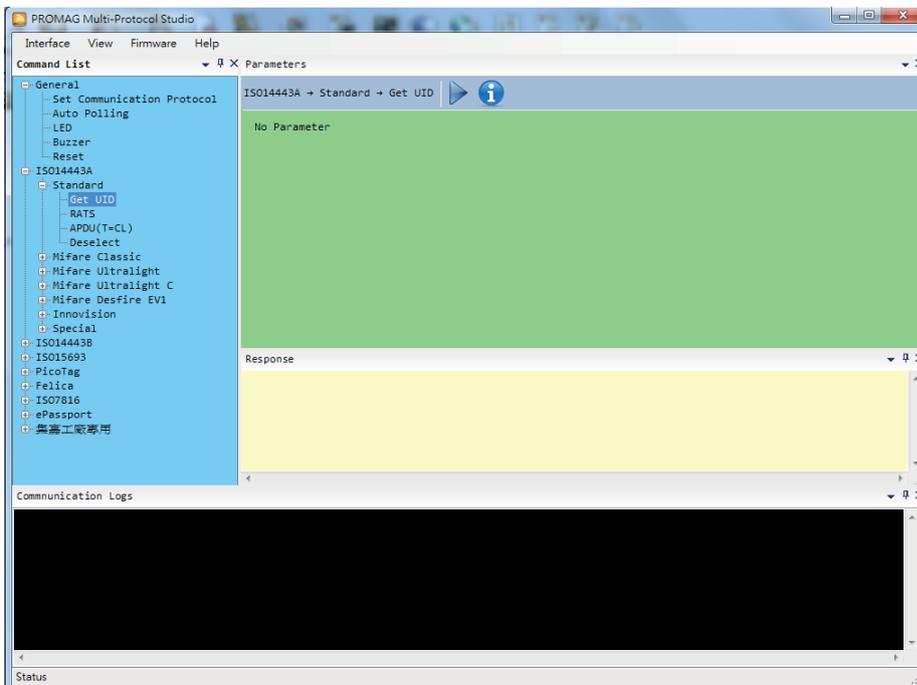


3. Click Finish.

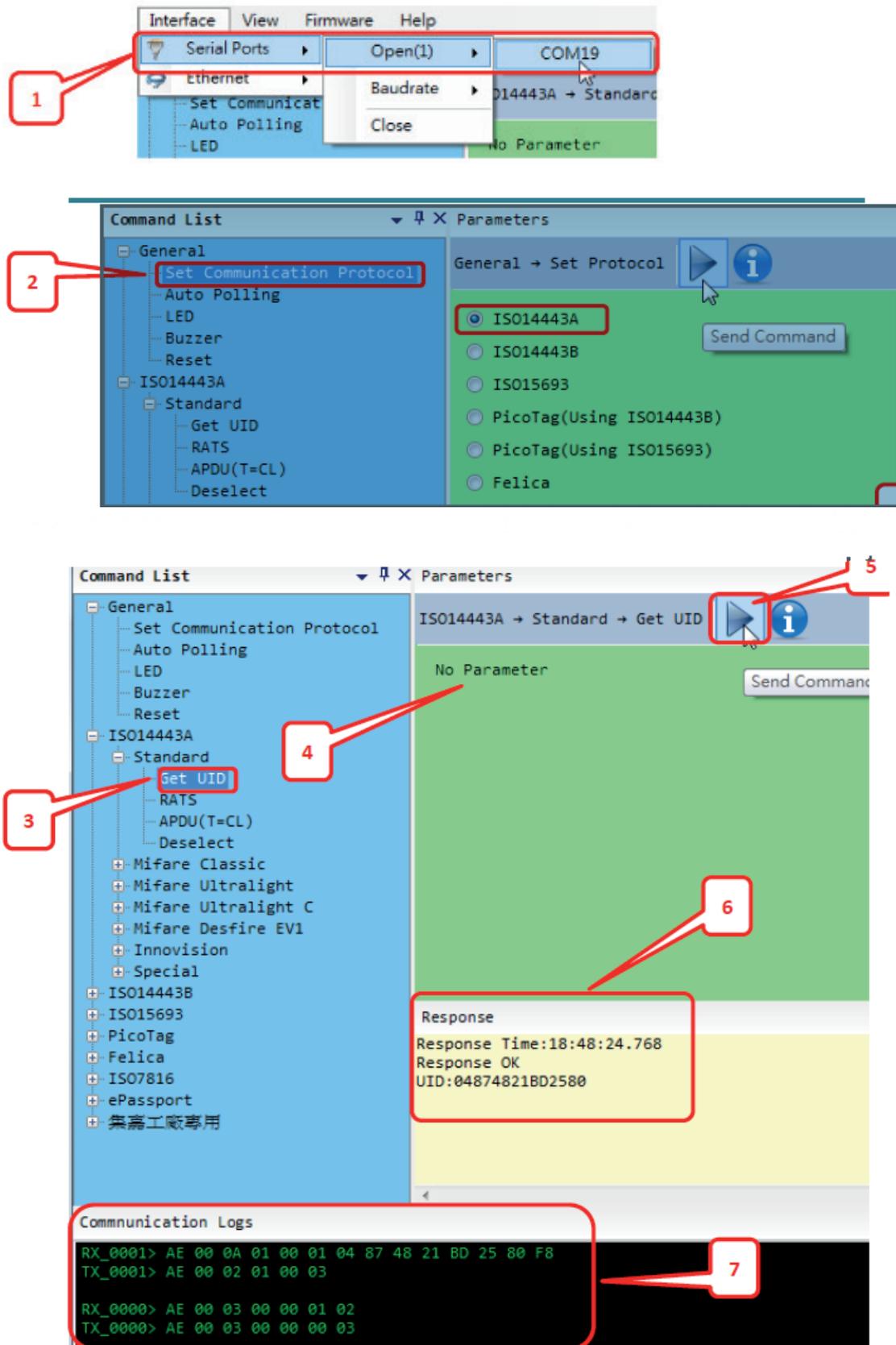


6-3-3. Quick Start with Demonstration Software

1. The demonstration software is "MP Studio.exe" provided in the folder "Demo Software". There is no software setup required; just double click the "MP Studio.exe". The demonstration software can run either from CD or a copy on hard drive. The GUI of software is shown in the picture below and ready to use.



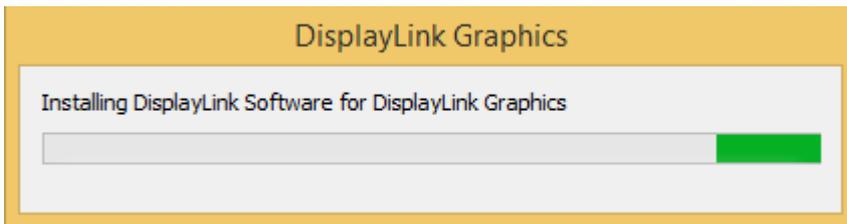
3. Following steps, as shown in the picture below, demonstration a simple usage in reading UID of ISO14443A card for quick understanding.



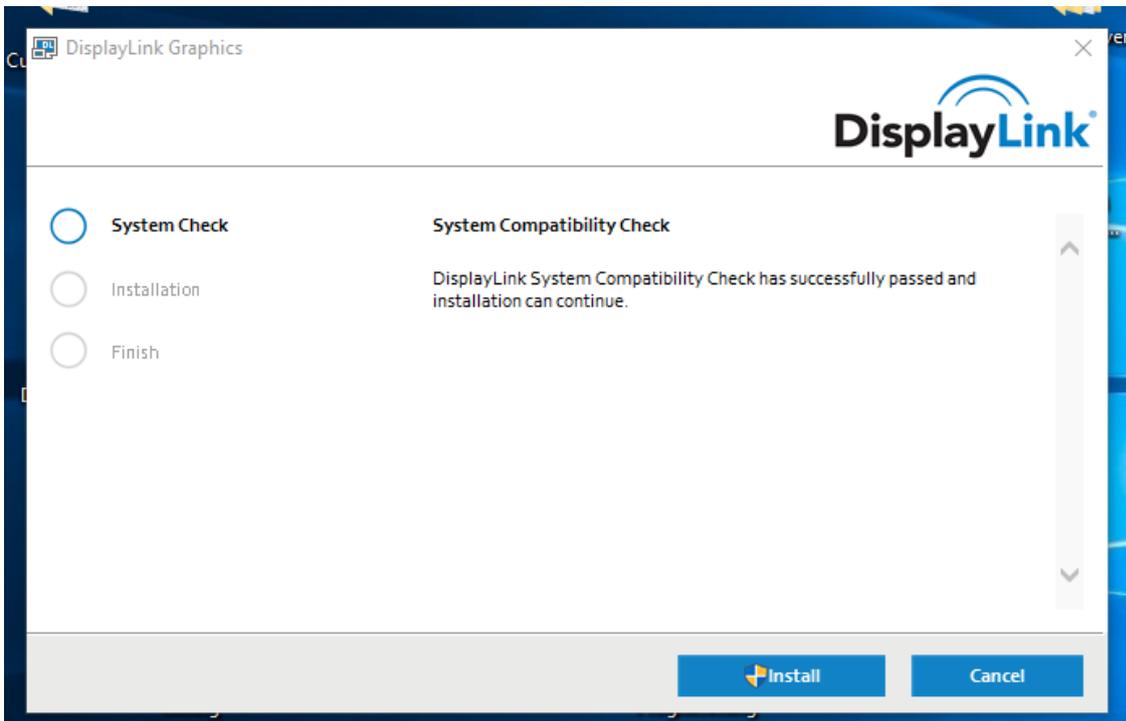
6-4. USB 2nd Display

DisplayLink software can be installed from Windows Update. Alternatively, the software can be downloaded and installed from the DisplayLink website following the steps below.

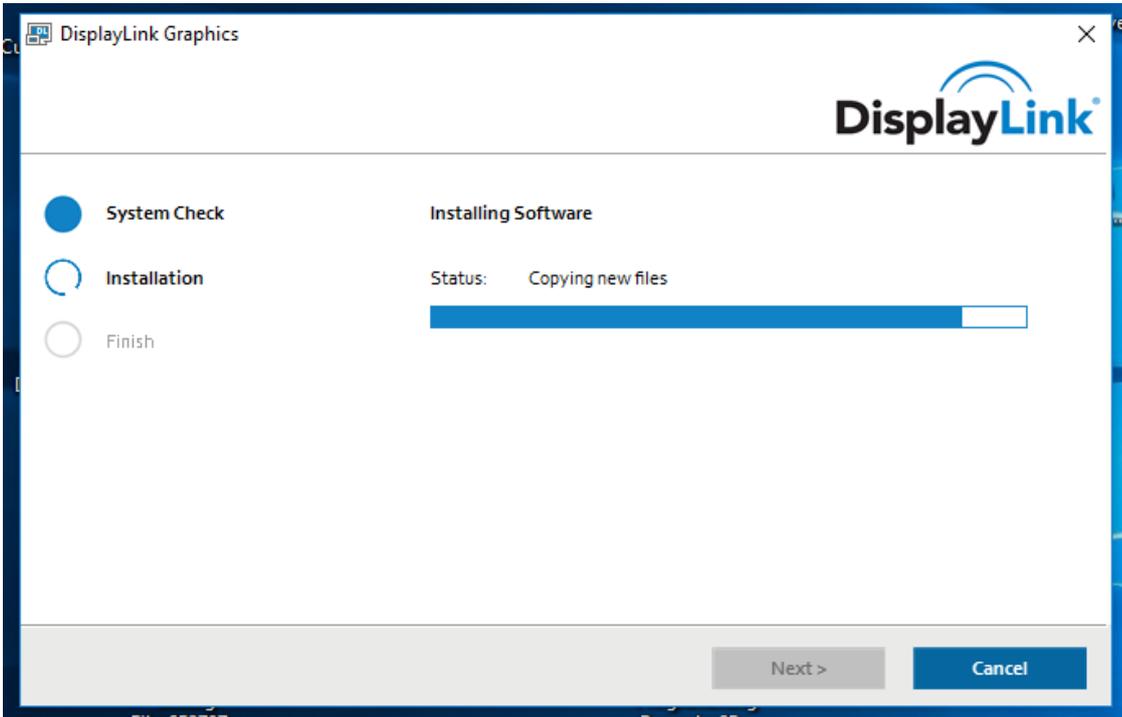
1. Double click on the DisplayLink executable, eg DisplayLink_RX.X.exe.
The Windows User Account Control window opens (if enabled in the OS).
2. Click Yes. DisplayLink Core Software installs.



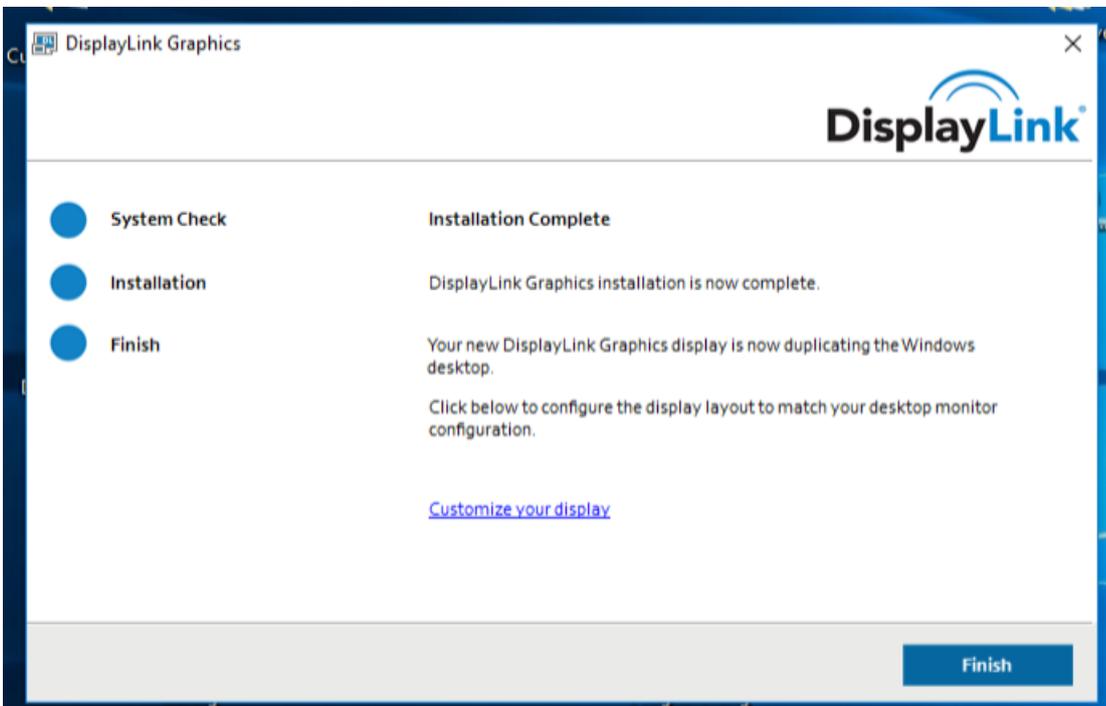
3. The System Compatibility Check then runs.
4. Click Install (if the System Compatibility Check passes).



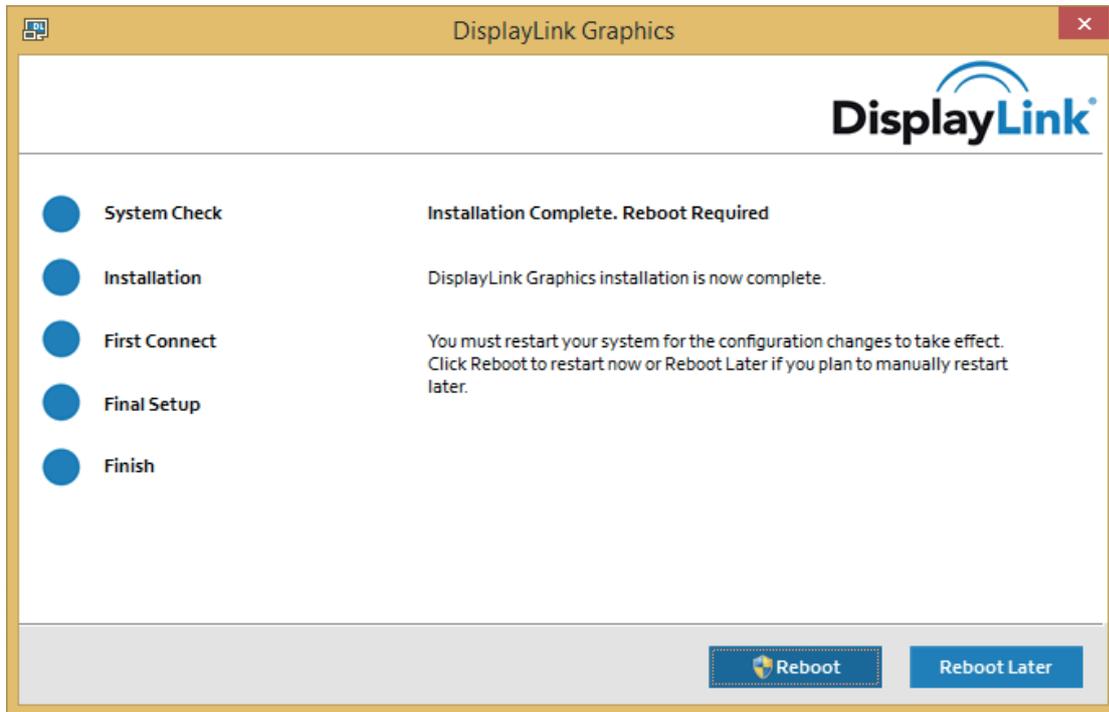
5. Connect your DisplayLink enabled device.



6. Upon detection of a DisplayLink enabled device DisplayLink Graphics installs.



7. You are then informed when installation of DisplayLink software has completed.



8. Reboot your SYSTEM to complete the installation.

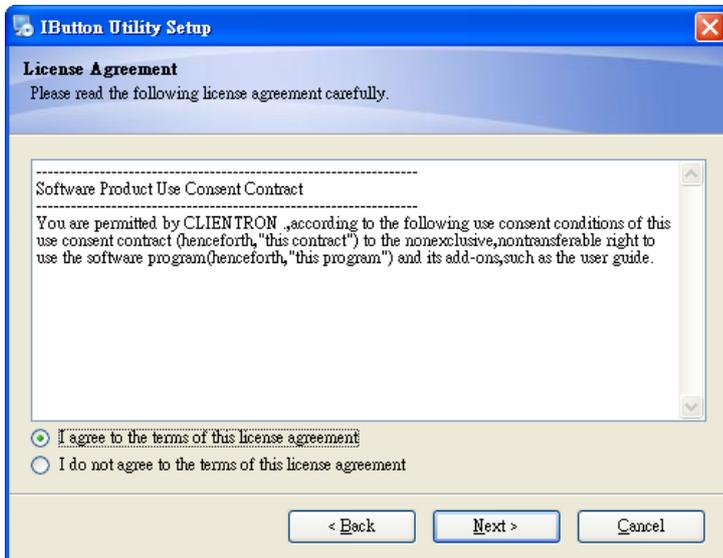
☆ Due to the Intel BayTrail J1900 CPU limitation, the DisplayLink driver can only be supported extend mode.

6-5. Configuration Utility of iButton Reader Installation

The steps below guide you how to install the Utility program.

- Insert the setup CD
- Run the **Clientron iButton Utility.exe** setup file that is located in the Software folder of CD
- Follow the wizard to complete the installation.

1. Setup Clientron iButton Utility.exe software



IButton Utility Setup

User Information
Enter your user information and click Next to continue.

Name:
clientron

Company:
clientron

< Back Next > Cancel

IButton Utility Setup

Installation Folder
Where would you like IButton Utility to be installed?

The software will be installed in the folder listed below. To select a different location, either type in a new path, or click Change to browse for an existing folder.

Install IButton Utility to:
C:\Program Files\IButton Utility Change...

Space required: 2.31 MB
Space available on selected drive: 1.69 GB

< Back Next > Cancel

IButton Utility Setup

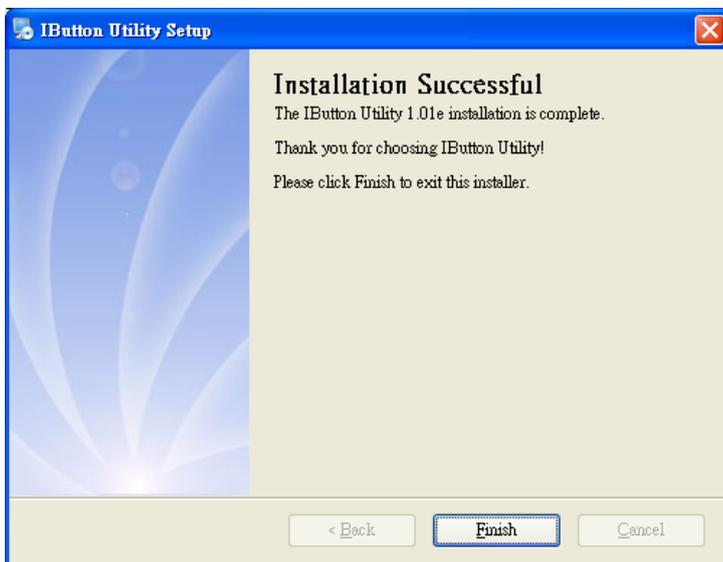
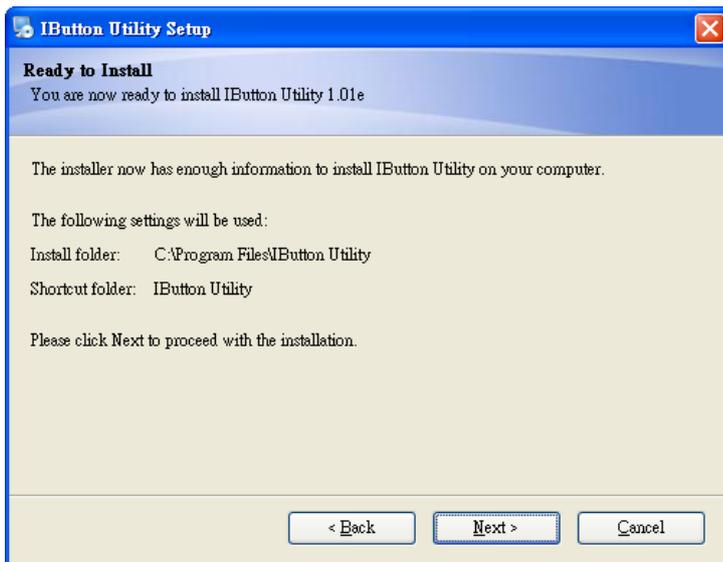
Shortcut Folder
Where would you like the shortcuts to be installed?

The shortcut icons will be created in the folder indicated below. If you don't want to use the default folder, you can either type a new name, or select an existing folder from the list.

Shortcut Folder:
IButton Utility

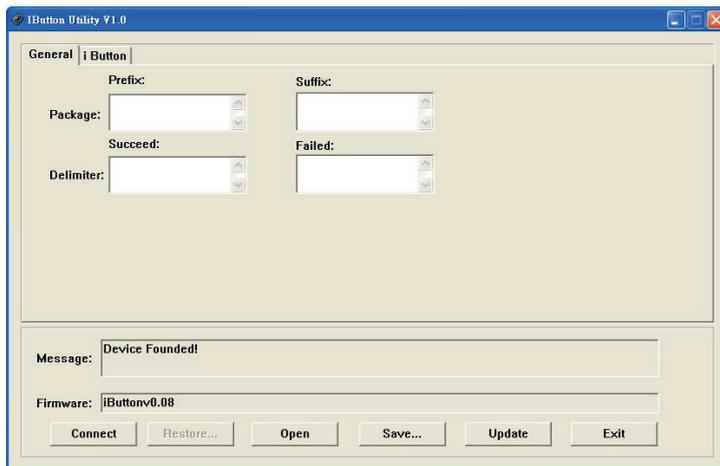
Install shortcuts for current user only
 Make shortcuts available to all users

< Back Next > Cancel



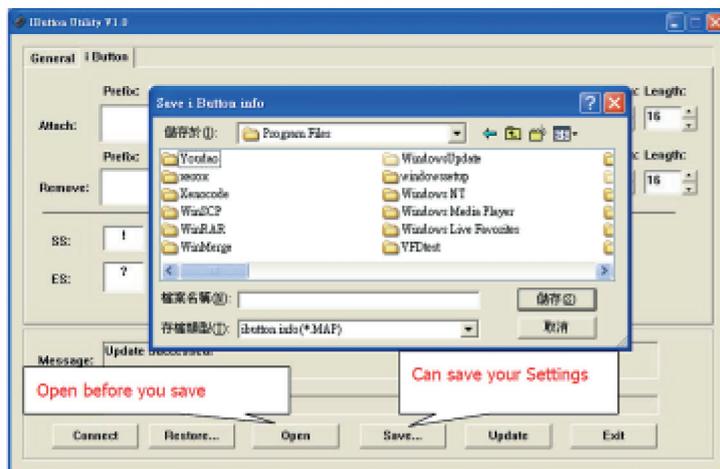
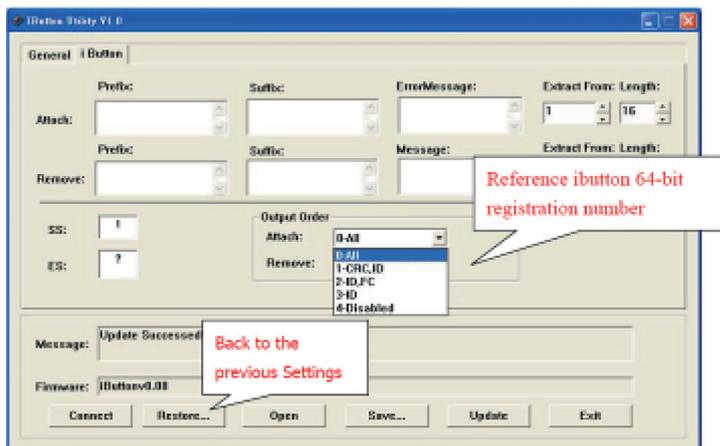
2. To execute “**Clientron iButton Utility.exe**” for setup communication between software and iButton module.

- The utility program will detect the connected reader. If detected, all the input text boxes will be enabled.
- If the reader has not been connected to PC yet, please connect the reader and then click Refresh to get connected.

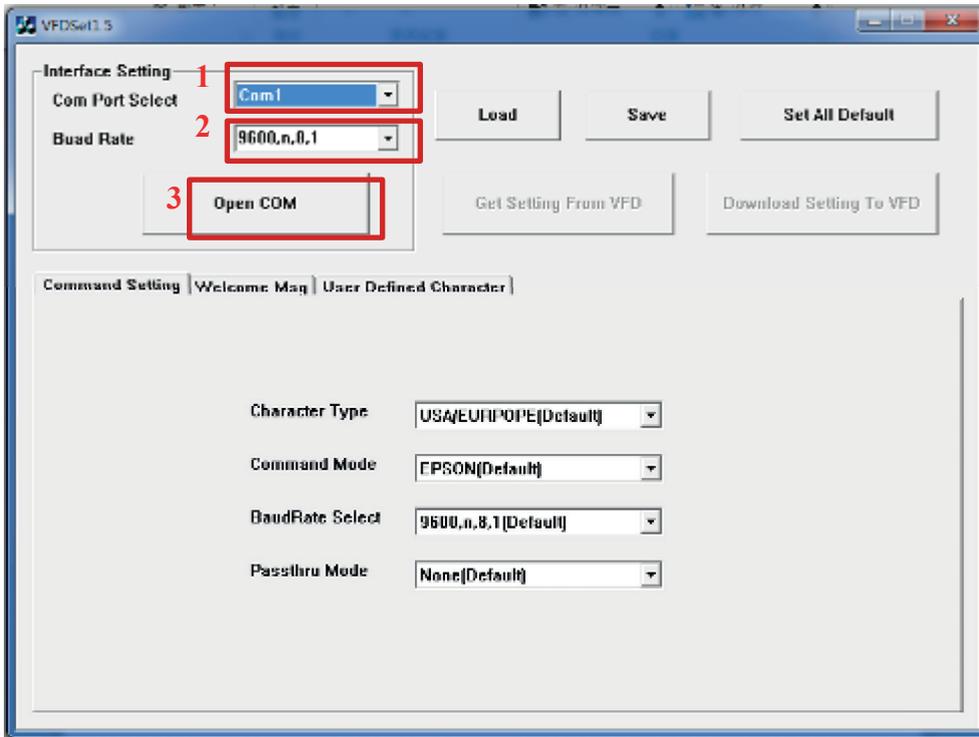


Configuration

Below is the main window of iButton Utility program.



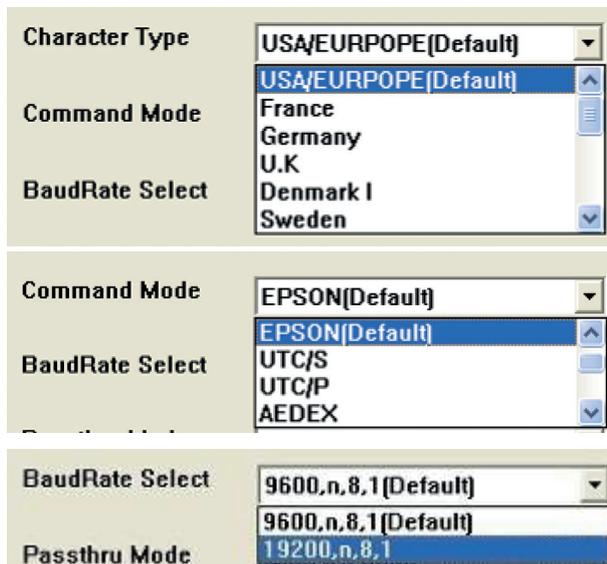
3. To execute “VFDset.exe” for setting up communication between the software and VFD module.



Please then follow the steps as shown in the above figure; the baud rate will be shown on the states page of VFD module (Note: You may check it when the power on the VFD module is on), then click the “Open COM” button.

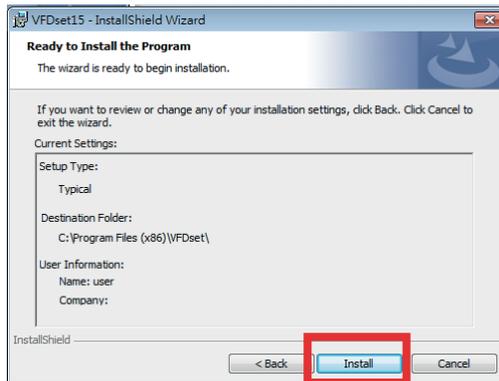
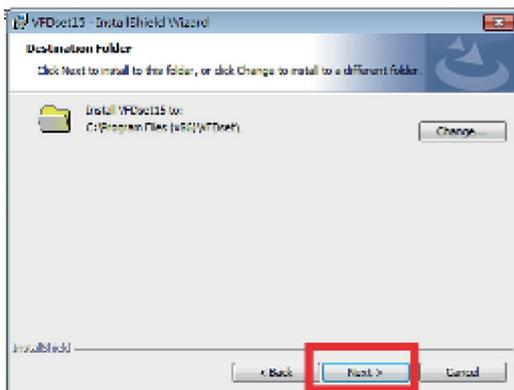
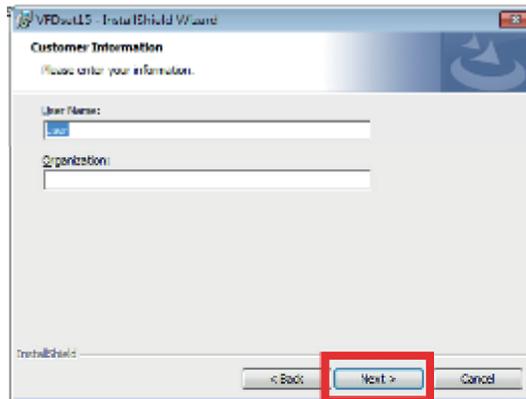
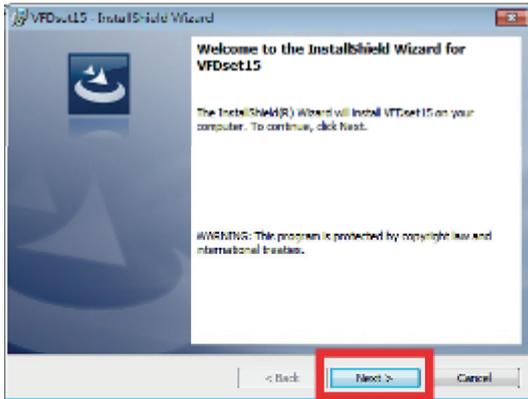
4. Click “Get Setting from VFD” button to get all the settings from VFD and it’ll refresh the “VFDset.exe” software.

5. Select “Character Type”/ “Command Mode”/ “Baud Rate Select”/ “pass thru Mode”.

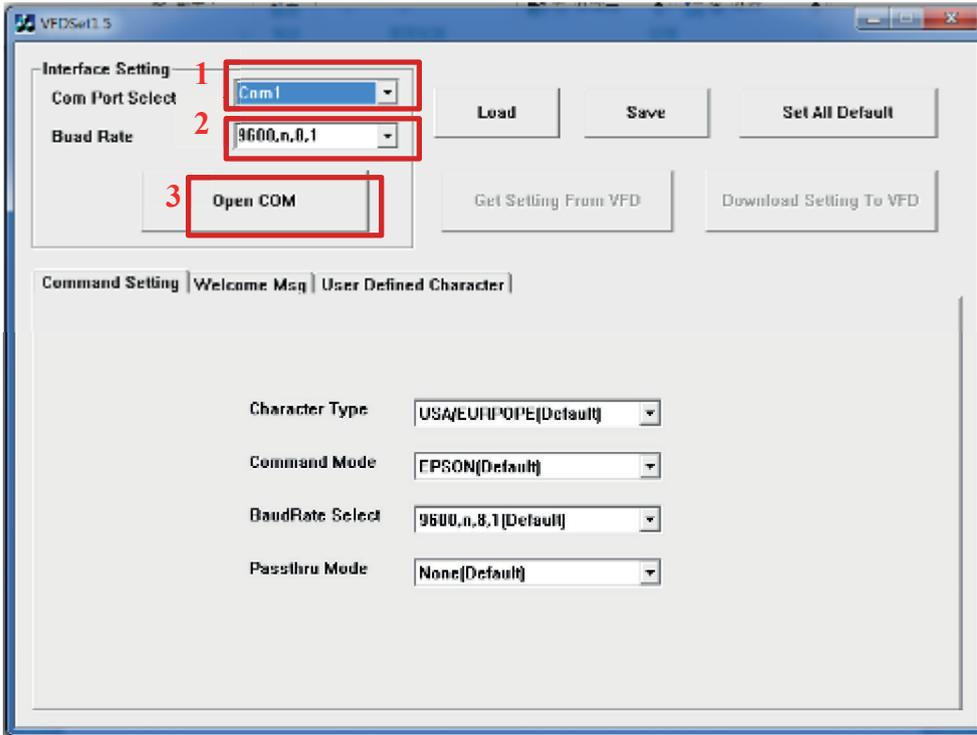


6-6. VFD

1. Power on VFD and waiting test page of EEPROM test, Baud rate and Command page. Set up the customer display by " VFDset.exe"
2. Setup VFDset.exe software.



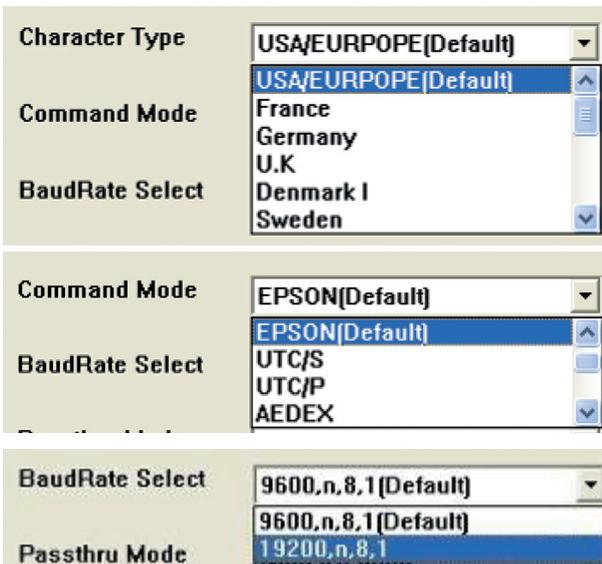
3. To execute "VFDset.exe" for setting up communication between software and VFD module.



Please then follow the steps as shown in the above figure, the baud rate will show on states page of VFD module (Note: You may check it when power on VFD module), then click “Open COM” button.

4. “Get Setting from VFD” button to get all the settings from Clientron and it’ll refresh the “VFDset.exe” software.

5. Select “Character Type”/ “Command Mode”/ “Baud Rate Select”/ “pass thru Mode”.



6. Click "Set All Default" button to show default setting, the Default table is

Character Type : USA
Command Type : EPSON/EUROPE
Baud Rate Setting : 9600/n/8/1
Pass-through Mode : None
Welcome msg line1 : *** VFD DISPLAY ***
Welcome msg line2 : **HAVE A NICE DAY AND THANK YOU **

7. Welcome Message

Welcome Message line1 maximum 20 characters, line 2 maximum 20 characters, total of 40 characters.

a. ASCII mode

Command Setting | **Welcome Msg** | User Defined Character

Welcome Message1
 ASCII
 Hex

0	5	10	15	20

Welcome Message2
 ASCII
 Hex

0	5	10	15	20															
2A	2A	2A	20	56	46	44	20	44	49	53	50	4C	41	59	20	20	2A	2A	2A
21	25	30	35	40															
44	20	54	48	41	4E	4B	20	59	4F	55	2A	2A	20	20	20	20	20	20	20

You can type the character by keyboard (0x20h ~ 0x7Fh), if you press clear icon, it will clear the all Message characters on AP.

b. Hex mode

Hex mode can define the character from 0x20h to 0xFFh , the range 0x80~0xFF which depends on the code page table.

Command Setting | **Welcome Msg** | User Defined Character

Welcome Message1
 ASCII
 Hex

0	5	10	15	20															
2A	2A	2A	20	56	46	44	20	44	49	53	50	4C	41	59	20	20	2A	2A	2A

Welcome Message2
 ASCII
 Hex

0	5	10	15	20

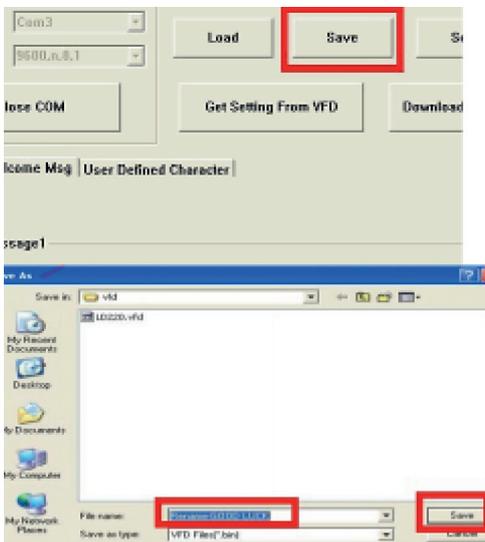
8. Click "Download setting to VFD" button

This button is to download the setting from VFDset.exe to VFD module. After success dialog "Download O.K! Please restart!" message popped up. Please restart display for enable new setting



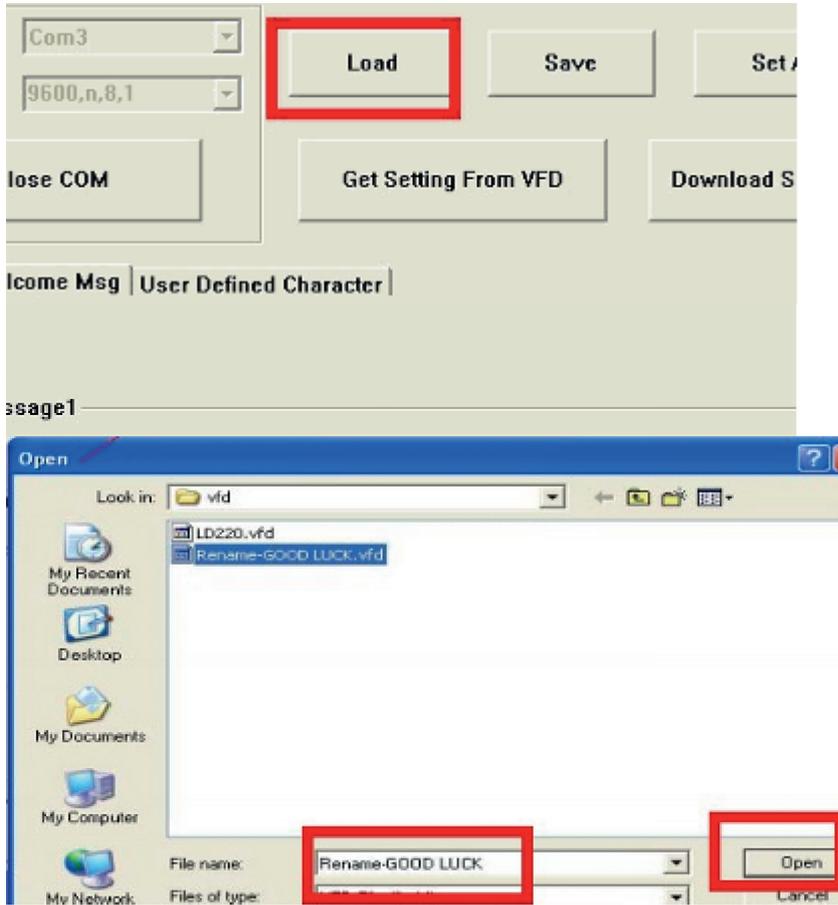
9. Click "Save" button

To save user's setting in file; for example, as shown in the picture below to save file name as "GOODLUCK" file set for Welcome Message.



10. Click "Load" button

After saving, you must restart the utility here. Then load your setting rename-GOODLUCK.vfd.



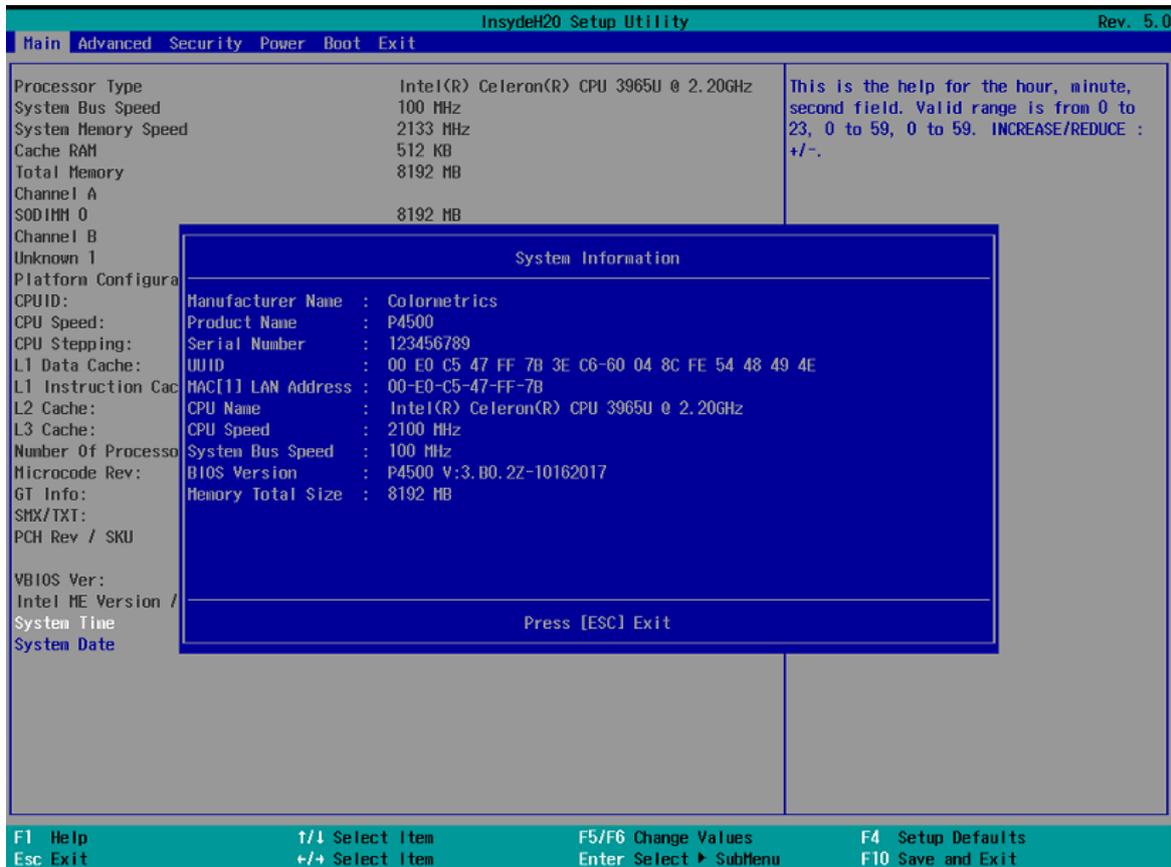
BIOS/UTILITY SETUP

1. Press key to enter SCU screen

```
InsydeH2O Setup Utility                               Rev. 5.0
Main Advanced Security Power Boot Exit
Processor Type Intel(R) Celeron(R) CPU 3965U @ 2.20GHz
System Bus Speed 100 MHz
System Memory Speed 2133 MHz
Cache RAM 512 KB
Total Memory 8192 MB
Channel A
SODIMM 0 8192 MB
Channel B
Unknown 1 [Not Installed]
Platform Configuration
CPUID: 0x806E9 (KABYLAKE ULT ULX)
CPU Speed: 2200 MHz
CPU Stepping: 09 (KBL H0/J0 Stepping)
L1 Data Cache: 32 KB
L1 Instruction Cache: 32 KB
L2 Cache: 256 KB
L3 Cache: 2048 KB
Number Of Processors: 2 Core(s) / 2 Thread(s)
Microcode Rev: 00000062
GT Info: GT1 (0x5906)
SMX/TXT: Un-Supported
PCH Rev / SKU 21 (C1 Stepping) / SKL PCH-LP (U) iHDCP
2.2 Premium
VBIOS Ver: 1054
Intel ME Version / SKU 11.8.50.3425 / CONSUMER
System Time [13:51:28]
System Date [12/18/2017]
This is the help for the hour, minute,
second field. Valid range is from 0 to
23, 0 to 59, 0 to 59. INCREASE/REDUCE :
+/-.
```

F1 Help F5/F6 Change Values F4 Setup Defaults
Esc Exit +/- Select Item Enter Select ► SubMenu F10 Save and Exit

2. Press <F9> to view the system information.



Date and Time

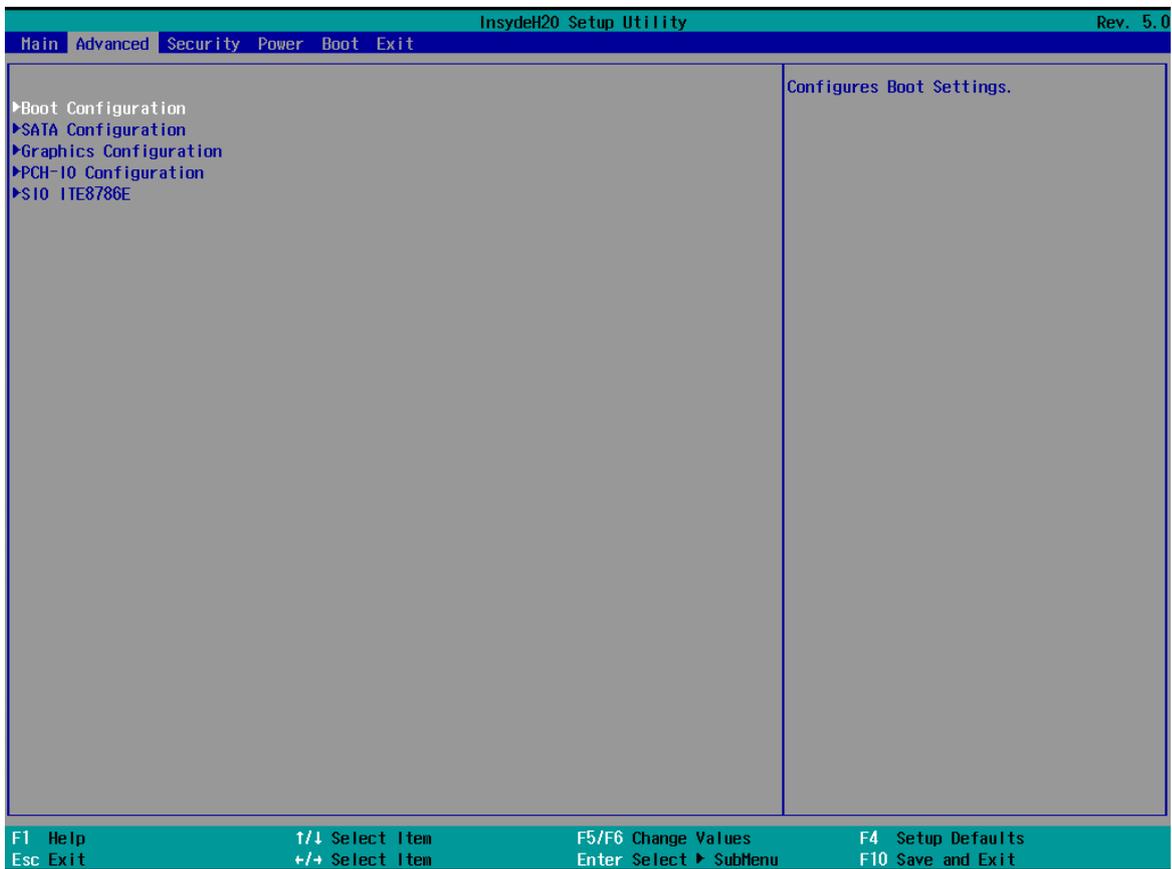
The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

WARNING!

Setting the wrong values in the sections below may cause the system to malfunction. Make sure that the settings made are compatible with the hardware.

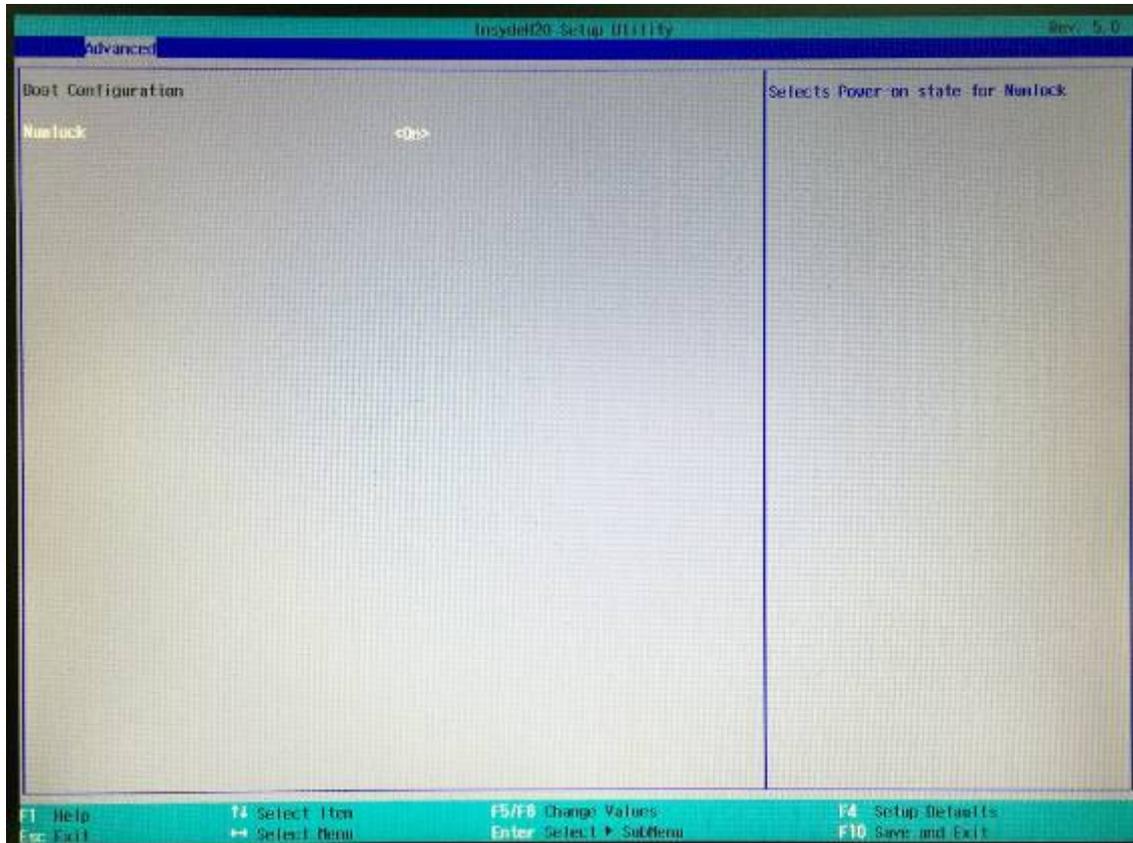
7-1. Advanced

Use the Advanced menu to configure the system for basic operation through the following sub-menus:



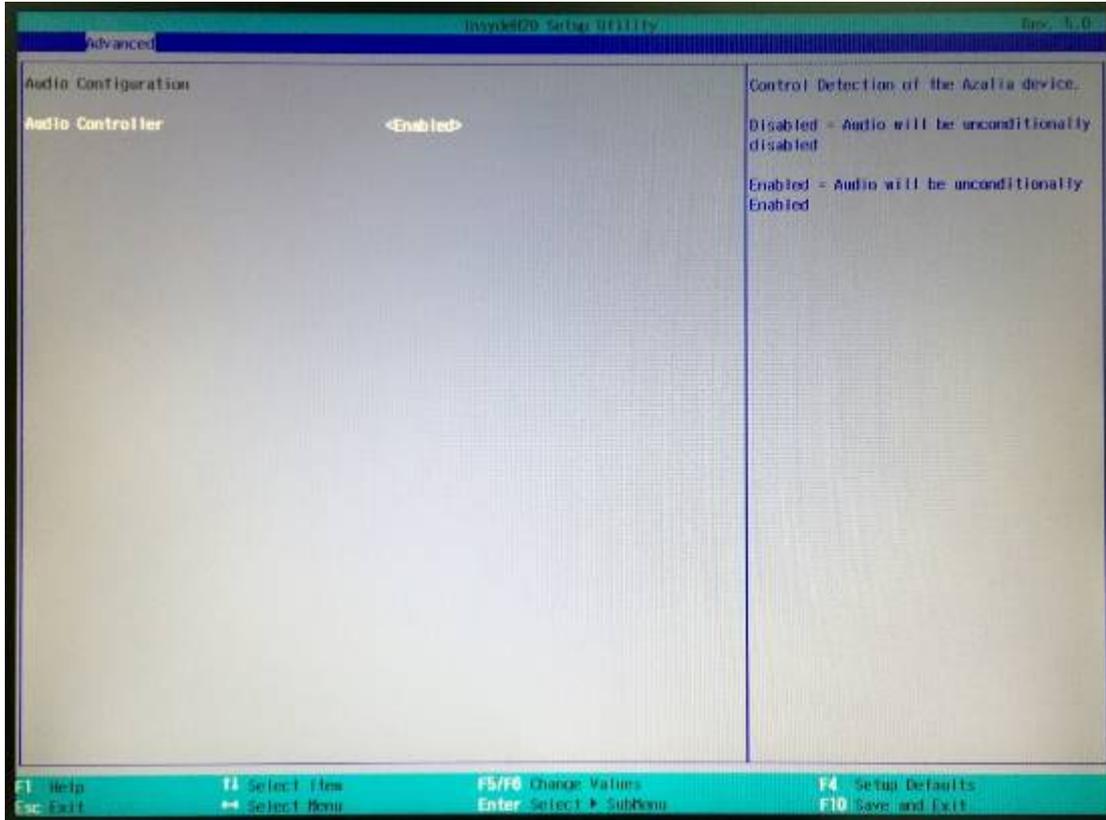
7-1-1. Boot Configuration

Use the Boot Configuration menu to select power-on state for Numlock.



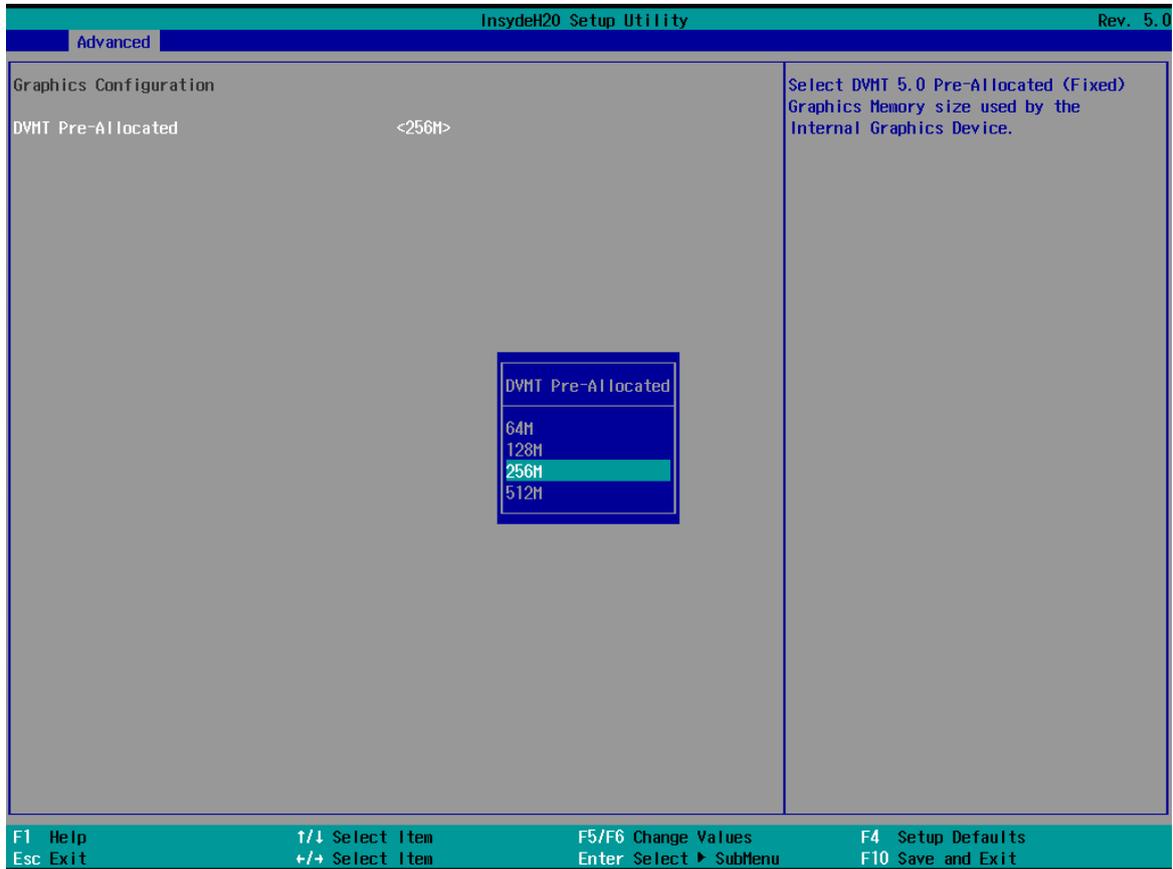
7-1-2. Audio Configuration

Use the Audio Configuration menu to read Audio configuration information and configure the Audio settings



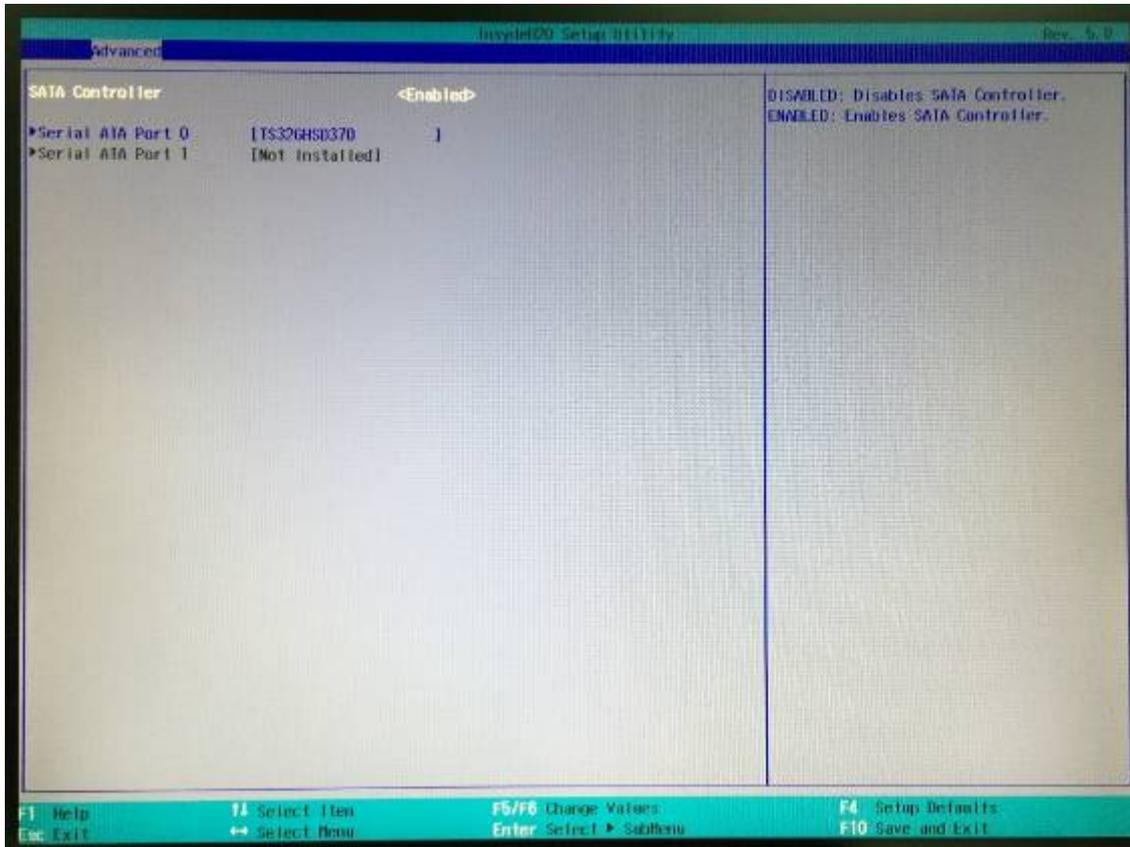
7-1-3. Video Configuration

Use the Video Configuration menu to read Video configuration information and configure the Video settings



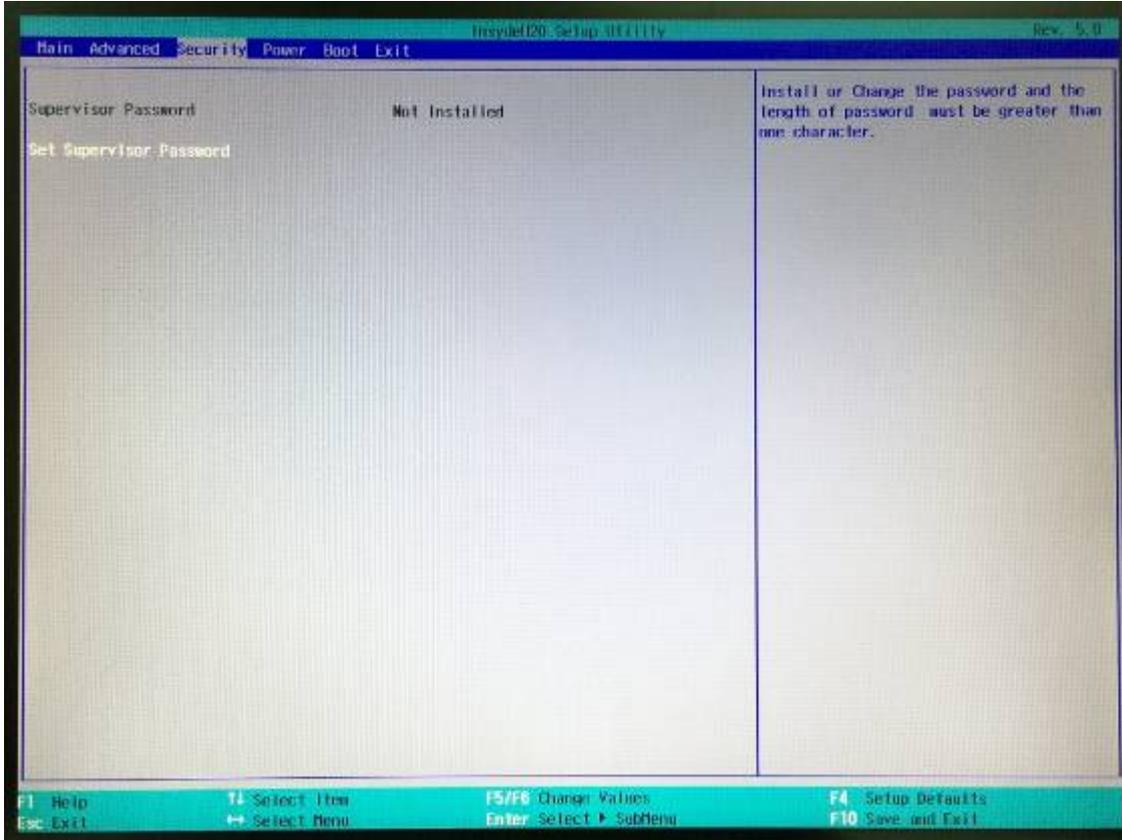
7-1-4. SATA Configuration

Use the SATA Configuration menu to read SATA configuration information and configure the SATA settings



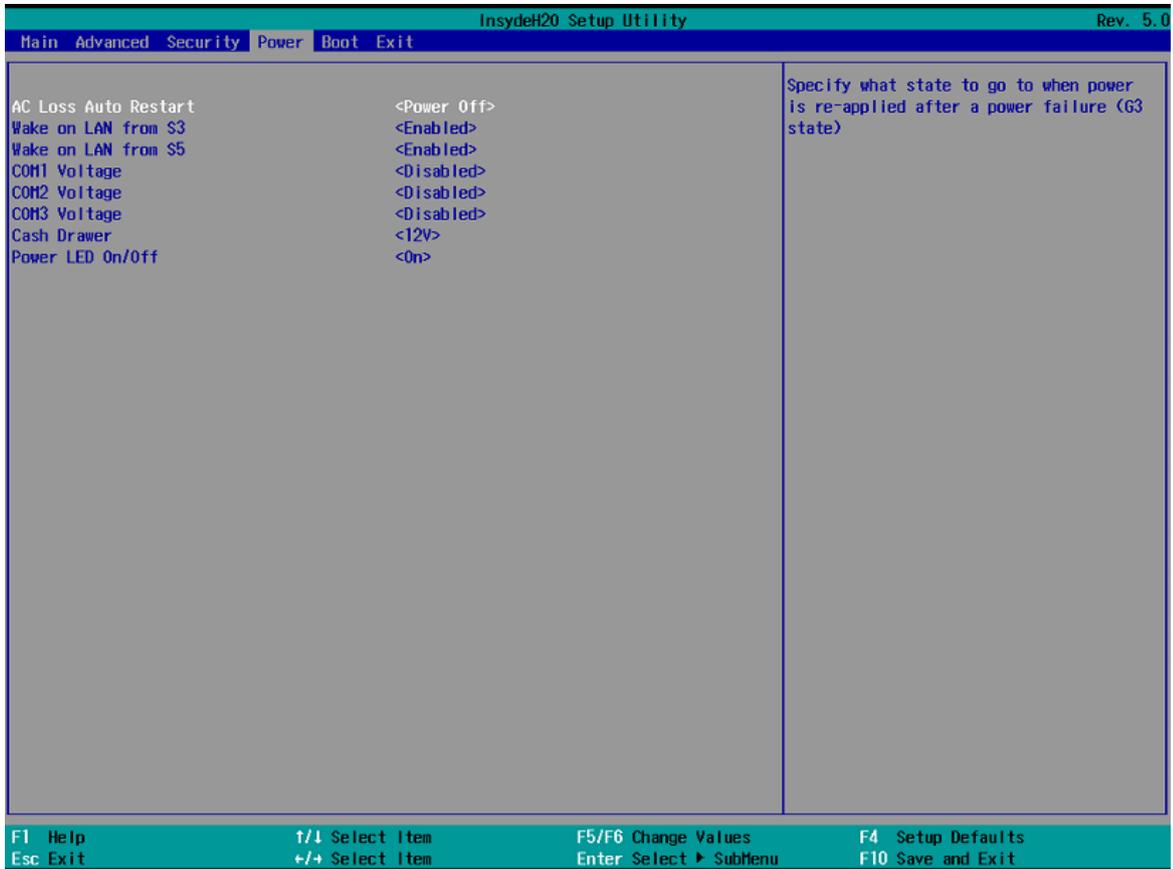
7-2. Security

Use the Security menu to install or change the password



7-3. Power

Use the Power menu to install or change the power settings.



AC Loss Auto Restart

Enable or disable system power on automatically after AC power restored

Wake on LAN

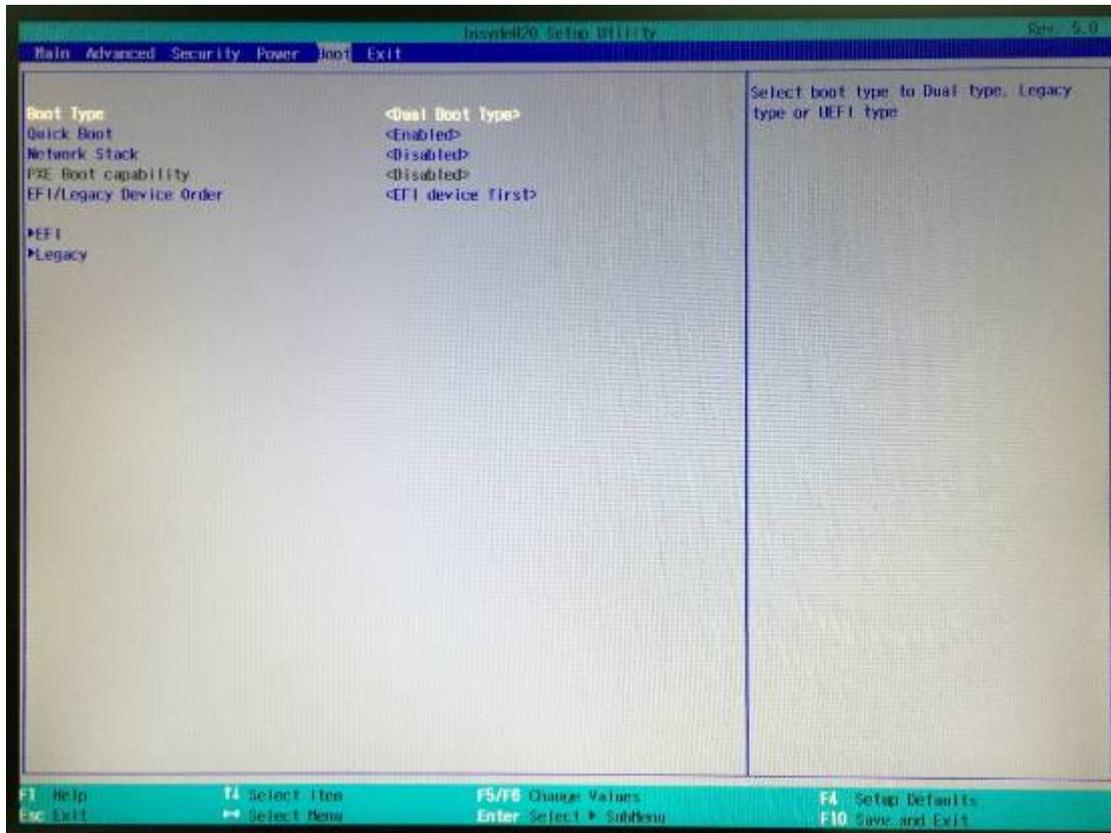
Enable or disable system wake by onboard LAN chip

COM Voltage

This item allows you to select off, 5V or 12V powered COM

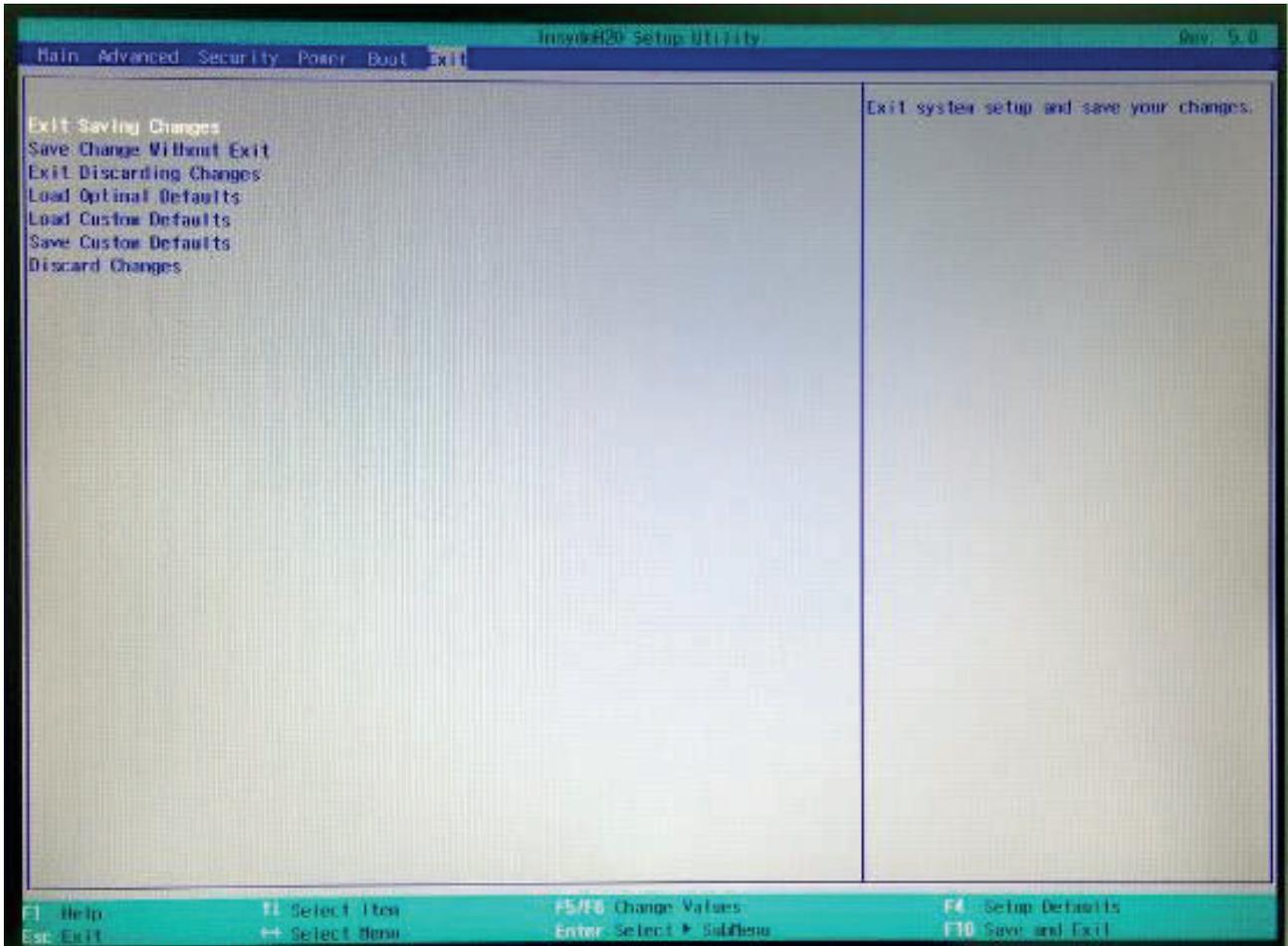
7-4. Boot

Use the Boot menu to select type to Dual type, Legacy type or UEFI type.



7-5. Exit

Use the Save & Exit menu to load default BIOS values, optimal failsafe values or to save configuration changes.



1. How to clean the LCD surface properly?

- ☆ Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.
- ☆ Always apply the solution to your cloth first, not directly to the parts you are cleaning. You want to avoid dripping the solution directly into your computer or laptop.
- ☆ Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. What are some of the basic supplies needed to clean an LCD screen?

- ☆ A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.
- ☆ Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.
- ☆ Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. What types of cleaners are acceptable?

- ☆ Water
- ☆ Vinegar (mixed with water)
- ☆ Isopropyl Alcohol

NOTICE: The following cleaners are unacceptable:

- Acetone
- Ethyl alcohol
- Ethyl acid
- Ammonia
- Methyl chloride